1st INTERNAL EXAMINATION FOR B.COM –2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -CORPORATE ADMINISTRATION **MAX MARKS= 30**
COURSE: - B.COM **TIME:-1 ½ HOUR**
SEMESTER:-1

Answer the following questions each carrying 2 marks: - **2x2=4**

1) What is memorandum of association?
2) What is company limited by shares?

Answer any two questions from each carrying 6 marks: - **6x2=12**

3) Explain the concept of one Person Company.
4) Briefly explain functions of promoters.
5) State the highlights of companies' act.2013.

Answer any one question carrying 14 marks: - **14x1=14**

6) Define Joint Stock Company? Explain its features.
7) What is memorandum of association? Explain its clauses.

1st INTERNAL EXAMINATION FOR BBA –2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -MANAGEMENT PROCESS **MAX MARKS= 30**
COURSE: - BBA **TIME:-1 ½ HOUR**
SEMESTER: - I

Answer the following questions each carrying 2 marks: - **2x2=4**

1) Define planning.
2) Expand PODSCORB.

Answer any two questions from each carrying 6 marks: - **6x2=12**

3) Explain the advantages and disadvantages of planning?
4) Discuss various functions of management.
5) Explain the principles of management.

Answer any one question carrying 14 marks: - **14x1=14**

6) Explain business and its social responsibilities.
7) What are planning process? Discuss various steps in planning process.

BANGALORE CITY COLLEGE
V SEMESTER BBA, INTERNAL EXAMINATION
DEPARTMENT OF COMMERCE AND MANAGEMENT
5.3: INVESTMENT MANAGEMENT

Time: 1:30 Hours Max. Marks: 30

I. Answer all the questions. Each question carries **two marks**. (2x2=4)

1) Give the meaning of Risk? Mention the various types of Risk
2) Difference between systematic risk Vs Unsystematic Risk?

II. Answer all the questions. Each question carries **6 marks**. (2x6=12)

1. What is fundamental analysis? Explain the Porter's five force model of industry analysis?
2. Explain the Source of Risk and source of investment information?

III. Answer all the questions. Each question carries **14 marks**. (1x14=14)

1) A stock costing Rs 120 pays no dividends. The possible prices that the stock might sell for at the end of the Year with the respective probabilities as fallow:

Price (Rs.)	Probability
115	0.1
120	0.1
125	0.2
130	0.3
135	0.2
140	0.1

a) Calculate the expected return
b) Calculate the standard deviation of returns

**********Best of Luck **********

BANGALORE CITY COLLEGE
1st SEMESTER BBA, INTERNAL EXAMINATION
DEPARTMENT OF COMMERCE AND MANAGEMENT
SUB: BUSINESS ORGANISATION ENVIRONMENT

Time: 1:30 Hours Max. Marks: 30

I. Answer all the questions. Each question carries **two marks**. (2x2=4)

1. Difference between trade and commerce?
2. Define Aids to trade?

II. Answer all the questions. Each question carries **6 marks**. (2x6=12)

1. What is Industry? Explain the types of industry?
2. What is Joint stock company? Explain the advantage and disadvantage of joint stock company?

III. Answer all the questions. Each question carries **14 marks**. (1x14=14)

1. Define joint stock company? Explain the types of joint stock company?

********** Best of Luck**********

BANGALORE CITY COLLEGE
3rd SEMESTER BBA (Aviation), INTERNAL EXAMINATION
DEPARTMENT OF COMMERCE AND MANAGEMENT
SUB: RETAIL MANAGEMENT

Time: 1:30 Hours Max. Marks: 30

I. Answer all the questions. Each question carries **two marks**. (2x2=4)

1 Define retailing? Mention the reason of studying the retailing?
2. Mention the functions and characteristics of a retailer?

II. Answer all the questions. Each question carries **6 marks**. (2x6=12)

1. Explain the concept of marketing retailer equation?
2. Explain retailing as a career – trends in retailing?

III. Answer all the questions. Each question carries **14 marks**. (1x14=14)

1. Explain the retail model and theories of retail development? Mention the life cycle and phase in growth of retail markets?

********** Best of Luck**********

BANGALORE CITY COLLEGE
5th SEMESTER B.COM, INTERNAL EXAMINATION
DEPARTMENT OF COMMERCE AND MANAGEMENT
SUB: 5.5: Elective Paper-I: IFM

Time: 1:30 Hours Max. Marks: 30

A. Answer all the questions. Each question carries **two marks**. (2x2=4)

1. Define Business Finance? What is Risk vs uncertainty?
2. Explain Profit Maximization? Mention three financial institutions?

B. Answer all the questions. Each question carries **six marks**. (2x6=12)

1. State the tools and techniques of inventory management?
2. Explain the objective of financial management? Mention the Investment appraisal technique?

C. Answer all the questions. Each question carries **14 marks**. (1x14=14)

1. Prepare an estimate of working capital requirement from the information of trading concern.
    a) Projected annual sales 1,00,000 units
    b) Selling price Rs.8 per unit
    c) Percentage of net profit on sales 25%
    d) Average credit period allowed to customer- 8 weeks.
    e) Average credit Period allowed by suppliers- 4 weeks.
    f) Average stock holding in terms of sales requirement 12 weeks.
    g) Allowed 10% for contingency.

**********Best of Luck**********

BANGALORE CITY COLLEGE
V SEMESTER BBA, INTERNAL EXAMINATION
DEPARTMENT OF COMMERCE AND MANAGEMENT
5.3: INVESTMENT MANAGEMENT

Time: 1:30 Hours Max. Marks: 30

I. Answer all the questions. Each question carries **two marks**. (2x2=4)

1) Give the meaning of Risk? Mention the various types of Risk
2) Difference between systematic risk Vs Unsystematic Risk?

II. Answer all the questions. Each question carries **6 marks**. (2x6=12)

1. What is fundamental analysis? Explain the Porter's five force model of industry analysis?
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1) A stock costing Rs 120 pays no dividends. The possible prices that the stock might sell for at the end of the Year with the respective probabilities as fallow:

Price (Rs.)	Probability
115	0.1
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a) Calculate the expected return
b) Calculate the standard deviation of returns

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BANGALORE CITY COLLEGE
1st SEMESTER BBA, INTERNAL EXAMINATION
DEPARTMENT OF COMMERCE AND MANAGEMENT
SUB: BUSINESS ORGANISATION ENVIRONMENT

Time: 1:30 Hours Max. Marks: 30

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2. Define Aids to trade?

II. Answer all the questions. Each question carries **6 marks**. (2x6=12)

1. What is Industry? Explain the types of industry?
2. What is Joint stock company? Explain the advantage and disadvantage of joint stock company?

III. Answer all the questions. Each question carries **14 marks**. (1x14=14)

1. Define joint stock company? Explain the types of joint stock company?

********** Best of Luck**********

BANGALORE CITY COLLEGE
3rd SEMESTER BBA (Aviation), INTERNAL EXAMINATION
DEPARTMENT OF COMMERCE AND MANAGEMENT
SUB: RETAIL MANAGEMENT

Time: 1:30 Hours Max. Marks: 30

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BANGALORE CITY COLLEGE
5th SEMESTER B.COM, INTERNAL EXAMINATION
DEPARTMENT OF COMMERCE AND MANAGEMENT
SUB: 5.5: Elective Paper-I: IFM

Time: 1:30 Hours Max. Marks: 30

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2. Explain the objective of financial management? Mention the Investment appraisal technique?

C. Answer all the questions. Each question carries **14 marks**. (1x14=14)

1. Prepare an estimate of working capital requirement from the information of trading concern.
    a) Projected annual sales 1,00,000 units
    b) Selling price Rs.8 per unit
    c) Percentage of net profit on sales 25%
    d) Average credit period allowed to customer- 8 weeks.
    e) Average credit Period allowed by suppliers- 4 weeks.
    f) Average stock holding in terms of sales requirement 12 weeks.
    g) Allowed 10% for contingency.

**********Best of Luck**********

Bangalore City College

M.Sc. II Semester 2014

Molecular Biology

Internal Assessment-I

Max. Marks-30

I. Write brief notes on any three - **5x3=15**

1. Z-DNA

2. Central Dogma

3. Operon Concept

4. Replication

II. Answer any one of the following- **1x15=15**

6. Explain prokaryotic DNA replication in detail.

7. Explain structure and functions of different types of RNA.

Bangalore City College

M.Sc. I Semester 2014

Molecular Biology

Internal Assessment-II

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. RNA editing

2. RNA primase

3. Transcription factors

4. cAMP receptor protein

5. Reverse Transcription

II. Answer any two of the following- **10x2=20**

6. Write an account on Trp Operon.

7. Explain the mechanism and applications of antisense RNA technology.

8. Describe in detail the mechanism of translation in Eukaryotes.

Bangalore City College

M.Sc. II Semester 2015

Molecular Biology

Internal Assessment-I

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. DNA Polymerase- I

2. Deamination

3. B-DNA

4. Okazaki fragments

5. Photolyases

II. Answer any two of the following- **10x2=20**

6. Explain Euokaryotic DNA replication in detail.

7. Explain the types and properties of DNA polymerase.

8. Explain Mismatch Repair mechanism.

Bangalore City College

M.Sc. I Semester 2015

Molecular Biology

Internal Assessment-II

Max. Marks-40

I. Answer any four of the following- **4x5=20**

1. DNA damage

2. Gene silencing

3. Peroxysomes

4. UV radiation

5. SOS repair

II. Answer any two of the following- **10x2=20**

6. Write an account on Lac Operon.

7. Explain Si RNA and Mi Rna.

8. Describe in detail the post transcriptional modification.

Bangalore City College

M.Sc. II Semester 2016

Molecular Biology

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. t RNA

2. RNA primase

3. Replication

4. Denaturation

5. Z-DNA

6. Transcription

Section-B

II. Answer any one of the following- **1x15=15**

6. "DNA as genetic material". Substantiate with appropriate experimental evidences.

7. Describe various DNA replication models.

8. Explain different types of RNA. Add a note on their properties.

Bangalore City College

M.Sc. II Semester 2016

Molecular Biology

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Attenuation

2. Translation

3. RNA polymerase

4. Telomerase

5. RNA editing

6. Reverse Transcription

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain Genetic Code.

7. Describe inhibitors of protein synthesis.

8. Explain mechanism of splicing.

Section-C

III. Answer any one of the following - **1x15=15**

9. Discuss the regulation of Gene expression in Eukaryotes.

10. Describe in detail the post translational modification.

Bangalore City College

M.Sc. II Semester 2017

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Rolling Circle Model

2. rRNA

3. Nucleotide

4. Renaturation

5. B-DNA

6. Translation

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a note on nearest neighbor frequency analysis.

7. Explain replication of Viral DNA.

8. Describe Fidelity of replication.

Section-C

III. Answer any one of the following - **1x15=15**

6. Write an account on kinetics of unwinding of double helix.

7. Describe Watson and Crick model of DNA.

Bangalore City College

M.Sc. II Semester 2017

Molecular Biology

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Alkylation

2. Gene silencing

3. Transcription

4. DNA damage

5. Promoters

6. Peroxysomes

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain the ribozyme technology.

7. Describe His Operon.

8. Explain Wobble hypothesis.

Section-C

III. Answer any one of the following - **1x15=15**

6. Write an account on characters and function of bacterial RNA polymerase.

7. Describe mechanism of translation in eukaryotes.

Bangalore City College

M.Sc. II Semester 2018

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. m RNA

2. DNA Pol I

3. Replication

4. Deamination

5. Z-DNA

6. DNA topoisomerase

Section-B

II. Answer any two of the following- **2x5=10**

6. Distinguish between tRNA and rRNA.

7. Describe an experiment to prove DNA as the genetic material.

8. Explain prokaryotic DNA replication mechanism in detail.

Section-C

III. Answer any one of the following - **1x15=15**

9. Explain prokaryotic DNA replication in detail.

10. Explain the types and properties of DNA polymerase.

Bangalore City College

M.Sc. II Semester 2018

Molecular Biology

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Amino acyl tRNA synthetase

2. Inhibitors of protein Synthesis

3. RNA polymerase

4. Catabolic repression

5. RNA splicing

6. Transcription

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain 5' capping and polyadenylation.

7. Write a note on DNA binding motifs of transcription factors.

8. Explain the process of localization of proteins.

Section-C

III. Answer any one of the following - **1x15=15**

6. Write an account on the role of cAMP and CRP in the expression of Lac genes.

7. Describe mechanism and application of antisense RNA technology.

Bangalore City College

M.Sc. II Semester 2019

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. DNA

2. SSB

3. Promoter

4. Okazaki fragments

5. DNA polymerase

6. Replication

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain the structure and functions of tRNA .

7. Write an account on Rolling circle model of DNA replication.

8. Discuss the Fidelity of replication.

Section-C

III. Answer any one of the following - **1x15=15**

9. Mention the proteins and enzymes involved in DNA replication and discuss their functions.

10. Give a comparative account of different forms of DNA.

Bangalore City College

M.Sc. II Semester 2019

Molecular Biology

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Tandem repeats

2. Wobble hypothesis

3. Si RNA

4. Antisense RNA

5. Ribosome assembly

6. Cis control elements

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain the negative and positive regulation of trp operon.

7. Describe applications of RNAi.

8. Explain Photoreactivation.

Section-C

III. Answer any one of the following - **1x15=15**

6. Write an account on the gene silencing mechanisms.

7. Describe mechanism of transport and localization of proteins to mitochondria and chloroplast.

1st INTERNAL EXAMINATION FOR B.COM –2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -MANAGEMENT Information System **MAX MARKS= 30**
COURSE: - B.BA (Aviation) **TIME:-1 ½ HOUR**
SEMESTER:-III

Answer any two of the following questions each carrying 2 marks each:- **2x2=4**

1) What is Information system ?
2) State the meaning of E- Commerce ?
3) State various E-Business Models ?

Answer the following questions from each carrying 6 marks each:- **6x2=12**

4) Discuss about the steps in implementing MIS?
5) Explain the concept of E-Mail?

Answer the following question carrying 14 marks:- **14x1=14**

6) Explain the various E-Business Models ?

1st INTERNAL EXAMINATION FOR B.COM & BBA –2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -HUMAN RESOURSE MANAGEMENT **MAX MARKS= 30**
COURSE: - BBA **TIME:-1 ½ HOUR**
SEMESTER:- III

Answer any two of the following questions each carrying 2 marks each:- **2x2=4**

1.Define HRM ?

2. What is HRP

3.Who is HR Manager**?**

Answer any two of the following questions from each carrying 6 marks each:- **6x2=12**

4. Explain the FUNCTIONS OF HR Manager ?

5.Explain the Duties and Responsibilities of HR Manager ?

6.State the benefits of Training ?

Answer any one of the following question carrying 14 marks:- **14x1=14**

7 .Explain the Steps in selection Process

8.Explain the methods of Recruitment ?

1st INTERNAL EXAMINATION FOR B.COM –2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -Quantitative analysis for business **MAX MARKS= 30**
COURSE: - B.BA **TIME:-1 ½ HOUR**
SEMESTER:-I

Answer the following questions each carrying 2 marks each:- **2x2=4**

1) What is Matrix ?
2) State any two types of Matrix ?
3) What is Null Matrix ?

Answer the following questions from each carrying 6 marks each:- **6x2=12**

4) Find LCM of 72,108,54
5) Find the Prime Factor of a) 825 b) 600

Answer the following question carrying 14 marks:- **14x1=14**

6) Find AB and BA If **A**= $\begin{matrix} 1 & 2 & -3 \\ 5 & 0 & 2 \\ 1 & -1 & 1 \end{matrix}$ **B**= $\begin{matrix} 3 & -1 & 2 \\ 4 & 2 & 5 \\ 2 & 0 & 3 \end{matrix}$

1st INTERNAL EXAMINATION FOR B.COM –2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -Public Relation And Corporate Communication **MAX MARKS= 30**
COURSE: B.COM **TIME:-1 ½ HOUR**
SEMESTER:-III

Answer any two of the following questions each carrying 2 marks each:- **2x2=4**

1) What is Positive Attitude ?
2) State any two components of Attitude ?
3) What is Stress Management ?
4) Define Vision ?

Answer any two of the following questions from each carrying 6 marks each:- **6x2=12**

5) Discuss the features of Positive Thinking ?
6) Explain the Features of Emotional Intelligence ?
7) Explain the importance of Time Management ?

Answer any one of the following question carrying 14 marks:- **14x1=14**

8) Explain the tips for setting and achieving goals?
9) Explain the steps to over come from Negative Attitude ?

1st INTERNAL EXAMINATION FOR B.COM –2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -Income Tax-1 **MAX MARKS= 30**
COURSE: B.COM **TIME:-1 ½ HOUR**
SEMESTER:-V

Answer any two of the following questions each carrying 2 marks each:- **2x2=4**

1) Who is an Assesses ?
2) State the meaning of Casual Income ?
3) Who is a Resident ?
4) Define Incidence of Tax ?

Answer any two of the following questions from each carrying 6 marks each:- **6x2=12**

5) State whether the following are Capital or Revenue nature?
   a) Cost of Acquisition and installation of Fixed Assets
   b) Expenditure incurred to increase earning capacity of business
   c) Amount paid as commission to purchase machinery
   d) Interest on loan
   e) Bonus shares received
   f) Dividend and Interest from investments.
6) Mr. Peter a foreign cricketer comes to India for 100 days every year sends the financial year 2009-2010, find out his residence status for the assessment year 2019-2020?
7) Explain the Canons of Taxation?

Answer any one of the following question carrying 14 marks: - **14x1=14**

8) Explain the Powers and Function of CBDT?
9) Mr. Krishna furnishes the following particulars of his income earned during the previous year during 2018-19.
   A) Profit from business from Chennai Rs. 50000
   b) Income from agriculture in Ceylon Rs. 190000
   c) Income from Property from Mexico received their RS.200000
   D) Interest on Singapore development bonds Rs. 150000(1/3 received in India)
   e) Dividend from Domestic Company in Rs. 100000
   f) Profit and sale of building in Bangalore received in Nepal Rs. 500000
   g) Income from agriculture in Punjab Rs. 100000
   h) Rent from house property in Nepal receive their Rs. 20000
   i) Profit from Business in Mysore received in Mandya 250000
   Determine his gross total income for the A.Y 2019-20 a) Resident b) NOR c) NR

1st INTERNAL EXAMINATION FOR B.COM –2019
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SUBJECT: -Business Communication **MAX MARKS= 30**
COURSE: - B.BA (Aviation) **TIME:-1 ½ HOUR**
SEMESTER:-III

Answer any two of the following questions each carrying 2 marks each: - **2x2=4**

1) What is Business Communication**?**
2) What is collection Letter?
3) Define Status Enquiry ?
4) What is Written Communication?

Answer any two of the following questions from each carrying 6 marks each: - **6x2=12**

5) Explain the types of Communication?
6) Explain the components of Status Enquiry?
7) Explain the duties of Company Secretary ?

Answer the following question carrying 14 marks:- **14x1=14**

8) Explain the functions of Company Secretary ?
9) Explain of barriers of Communication ?

1st INTERNAL EXAMINATION FOR B.COM –2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -Quantitative Analysis for Business Decission-II **MAX MARKS= 30**
COURSE: B.COM **TIME:-1 ½ HOUR**
SEMESTER:-III

Answer any two of the following questions each carrying 2 marks each:- **2x2=4**

1) What is Correlation?
2) State the Components of time series?
3) What is Interpolation?

Answer any two of the following questions from each carrying 6 marks each: - **6x2=12**

4) Find co-efficient of co-relation between following two variables, Comment on results through Probable error,
   X: 6 8 12 15 18 20 24 28 31
   Y : 10 12 15 18 25 22 26 28
5) Calculate the co-efficient of rank co-relation from the following data
   X : 60 34 40 50 45 41 22 43 42
   Y: 73 32 34 40 45 33 12 30 36
6) Write a short note on KarlPearson's Co-efficient ?

Answer any one of the following question carrying 14 marks:- **14x1=14**

7. Fit a Straight line trend by method of Least Square and tabulate the trend value and shoe the value of graph from the following figures of production of sugar factory.

YEAR:	2007	2008	2009	2010	2011	2012	2013
Production (tons)	80	90	92	83	94	99	92

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SUBJECT: -ADVANCED FINANCIAL MANAGEMENT **MAX MARKS= 30**
COURSE: - B.BA **TIME:-1 ½ HOUR**
SEMESTER:-V

Answer any two of the following questions each carrying 2 marks each:- **2x2=4**

1) What is Risk ?
2) State any two techniques of measuring Risk?
3) What is Cost of Capital ?

Answer any two of the following questions from each carrying 6 marks each:- **6x2=12**

4) Ganga Pvt ltd issues 50,000 8% debentures of Rs. 100 each at a premium of 10%. The tax rate applicable to the company is 50 %. Compute after tax cost of debt.?
5) Explain the types of Risk ?

Answer the following question carrying 14 marks:- **14x1=14**

6) From the following information ascertain which project is more risky on basis of standard deviation and Calculate co-efficient of variation.

Cash flow	***Probabilities***	***Cash flow***	***Probabilities***
2000	0.1	2000	0.1
4000	0.3	4000	0.2
6000	0.2	6000	0.4
8000	0.2	8000	0.2
10000	0.2	10,000	0.1

7) The following is the capital Structure and the firms expected after Tax component cost of the various source of finance.

Sources of Finance	**Amount**	**Expected After Tax cost(%)**
Equity Share Capital	6,50,000	20
Retained Earnings	2,50,000	20
Preference Share Capital	1,50,000	15
Debt Capital	4,50,000	12

Calculate the weighted average cost of capital.

Bangalore City College

M.Sc. I Semester 2014

Internal Assessment-I

Max. Marks-30

I. Write brief notes on any three - **5x3=15**

1. Actin Binding Protein

2. WBC

3. MAPs

4. Plasmodesmata

5. Fluid Masaic Model

II. Answer any one of the following- **1x15=15**

6. Explain the structure of a Eukaryotic cell.

7. Explain senescence and theories of ageing.

Bangalore City College

M.Sc. I Semester 2014

Internal Assessment-II

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. Passive difussion

2. Cyclins

3. Apoptosis

4. Necrosis

5. Symport

II. Answer any two of the following- **10x2=20**

6. Give a detailed account of prophase I of Meiosis. Add a note on it's significance

7. Explain the different types of Active transport across the membrane.

8. Describe in detail the mechanism of nerve transmission.

Bangalore City College

M.Sc. I Semester 2015

Internal Assessment-I

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. Peroxisomes

2. Action Potential

3. Collagens

4. Selections

5. Nucleolus

II. Answer any two of the following- **10x2=20**

6. Describe the mechanism of Necrosis.

7. Explain the components of blood and their function.

8. Describe the structure and function of plasma membrane.

Bangalore City College

M.Sc. I Semester 2015

Internal Assessment-II

Max. Marks-40

I. Answer any four of the following- **4x5=20**

1. Explain structure and function of nerve cell.

2. Explain Nucleic Acids

3. Explain Membrane Vesicular traffic

4. Cyclin dependant kinase

5. ROS

II. Answer any two of the following- **10x2=20**

6. Explain cellular Mechanism of development.

7. Write a detailed account on extracellular matrix.

8. Describe the role of receptors in cell signaling.

Bangalore City College

M.Sc. I Semester 2016

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Intermediate filaments

2. Microtubules

3. Ribosome

4. Vacuole

5. Cell theory

6. Platelets

Section-B

II. Answer any one of the following- **1x15=15**

6. Explain the structure of a Eukaryotic cell.

7. With the help of neat labelled diagram define Nucleus.

8. Write the functions of Endoplasmic Reticulum and Mitochondria.

Bangalore City College

M.Sc. I Semester 2016

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Cathedrins

2. Ion Channels

3. Cyclin dependant kinase

4. ATPase Pump

5. Tight Junction

6. Necrosis

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain G protein coupled receptors.

7. Describe the mechanism of Apoptosis.

8. Explain plasmodesmata.

Section-C

III. Answer any one of the following - **1x15=15**

9. Write an account on molecular events of cell division and cell cycle.

10. Describe the mechanism involved in the transport of molecules across the membrane.

Bangalore City College

M.Sc. I Semester 2017

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Sclerenchyma

2. Microtubules

3. Lysosomes

4. Fluid Mosaic Model

5. Desmosomes

6. Proteoglycans

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a detailed account on extracellular matrix.

7. Describe Nucleus.

8. Describe Tight and Gap junction.

Section-C

III. Answer any one of the following - **1x15=15**

9. Explain the structural organization of Eukaryotic cell.

10. Explain the components of blood and their function.

Bangalore City College

M.Sc. I Semester 2017

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Cathedrins

2. Ion Channels

3. Cyclin dependant kinase

4. ATPase Pump

5. Tight Junction

6. RBC

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain Na+ and K+ pump.

7. Describe the structure and function of non striated muscles.

8. Explain the membrane vesicular traffic.

Section-C

III. Answer any one of the following - **1x15=15**

9. Write an account on molecular events of Meiosis.

10. Describe the mechanism of cell signaling.

Bangalore City College

M.Sc. I Semester 2018

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Actin Binding Protein

2. WBC

3. MAPs

4. Plasmodesmata

5. Intermediate filaments

6. Collagen

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a detailed account on cell junctions

7. Explain the structural organization of Prokaryotic cell.

8. Describe structural organization of Cell wall.

Section-C

III. Answer any one of the following - **1x15=15**

9. Explain cytoskeleton and its functions.

10. Explain membrane models.

Bangalore City College

M.Sc. I Semester 2018

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Kinase receptors

2. Senescence

3. Cyclin dependant kinase

4. Antiport

5. Gap Junction

6. Ageing

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain neurotransmitters.

7. Describe general principles of cell signaling.

8. Describe the structure and function of muscles.

Section-C

III. Answer any one of the following - **1x15=15**

9. Explain the structure and functions of muscles.

10. Describe the Antioxidant Defence Mechanism .

M.Sc. I Semester 2019

Internal Assessment-I

Max. Marks-30

I. Write brief notes on any three - **5x3=15**

1. Passive difussion

2. Cathedrins

3. Necrosis

4. Apoptosis

5. Symport

6. Desmosomes

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a note on microtubules.

7. Explain the nature of cytoskeleton elements.

8. Explain the structure and functions of flagella.

Section-C

III. Answer any one of the following - **1x15=15**

9. Write an account on molecular events of cell division and cell cycle.

10. With the help of neat labelled diagram define Nucleus.

Bangalore City College

M.Sc. I Semester 2019

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. RNS

2. Neuron

3. Tight Junction

4. Endocytosis

5. Desmosomes

6. Ion Channels

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain cell to cell adhesion.

7. Write a note on CAMP as a second messenger.

8. Describe the structure and function of nerve cell.

Section-C

III. Answer any one of the following - **1x15=15**

9. Explain the conduction and transmission of nerve impulse..

10. Explain Senescence and theories of ageing.

BANGLORE CITY COLLAGE

INTERNAL EXAMINATION- May 2016

ORGANIC SYNTHESIS-C- 403

Time : 1: 30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 What is Darzens reaction ?

2 Write any two uses of nucleophilic nitrogen and electrophilic carban

3 write short note on LAH .

4 Write any two synthetic application of stork Enamine reaction .

5 what is atom efficiency ?

II Answer any four of the following questions (4*5 = 20)

1 Explain the use of (+) and (-) DET in asymmetric epoxidation .

2 Give the products for the degradation of peptides by using solid phase – edman degradatrion techniques .

3 Write a note on the sonochemical esterification .

4 Define the terms asymmetric synthesis . state and illustrate crams rule of asymmetric induction .

5 Discuss the different steps involved in the solid supported synthesis of oligosaccharides .

Bangalore City College

Department of physics

II Sem, M.Sc. Physics, Internal Exam, May-2015

P204 : Mathematical and Computational Methods of Physics

Time: 1 and ½ hours Max. Marks:30

Note: Answer all the questions.

Q1. Express the Laplace Equation in spherical polar coordinates and obtain the solution for radial part of the wave equation. (10)

Q2. State and prove Parseval's theorem. (10)

Q3. Solve the two dimensional Laplace's equation in Cartesian coordinates by the method of separation of variables. (10)

Bangalore City College

Department of physics

II Sem, M.Sc. Physics, Internal Exam, May-2016

P204 : Mathematical and Computational Methods of Physics

Time: 1 and ½ hours Max. Marks:30

Note: Answer all the questions.

Q1. What are the boundary value problem? Explain with examples. (10)

Q2. What is the numerical integration? Obtain the Simpson's $1/3^{rd}$ rule for numerical integration. (10)

Q3. Find the root of a non – linear equation, Y= exp(x)- 3x by employing Bisection method with initial values 0.60 and 0.62. (10)

Bangalore City College

Department of physics

II Sem, M.Sc. Physics, Internal Exam, May-2017

P204 : Mathematical and Computational Methods of Physics

Time: 1 and ½ hours Max. Marks:30

Note: Answer all the questions.

Q1. By making use of Euler's method, write a C- program to solve the differential Equation $\frac{dy}{dx} + xy = 0$ with y(0) =1 from x=0 to x-1 in steps of 0.25. (10)

Q2. If u(x,y,z)=a and v(x,y,z)=b are the two independent solutions of ordinary differential equations, $\frac{dx}{p}=\frac{dy}{Q}=\frac{dz}{R}$ then show that ϕ(u,v)=0 is the general solution Of the partial differential equation $P\frac{\delta z}{\delta x}+\frac{\delta z}{\delta y}$= R. (10)

Q3. Obtain the complex form of Furier series of the function:

$$f(x) = \begin{cases} 0 \ for & \pi \leq x \leq 0 \\ 1 \ for & 0 \leq x \leq 0 \end{cases}$$

Bangalore City College

Department of physics

II Sem, M.Sc. Physics, Internal Exam, May-2018

P204 : Mathematical and Computational Methods of Physics

Time: 1 and ½ hours Max. Marks:30

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Bangalore City College

Department of physics

II Sem, M.Sc. Physics, Internal Exam, May-2019

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Of the partial differential equation $P\frac{\delta z}{\delta x}+\frac{\delta z}{\delta y}$= R. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2015

P404-E-13 : Physics Of Nanomaterials

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. What is the capping technique and its necessity? Explain with examples.(10)

Q2. How the crystallite size is determined by XRD ? Explain. (10)

Q3. Explain the variation of effective mass of an electron in a band. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May -2016

P404-E-13 : Physics Of Nanomaterials

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Discuss in detail, the optical absorption in quantum wells with example.(10)

Q2. Give the details of quantum well structures by thin film deposition technique. (10)

Q3. Discuss quantum confinement in two dimensions. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May -2017

P404-E-13 : Physics Of Nanomaterials

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Discuses the formation of domain and domain wall and the magnetization processes in particulate nanomagnets. (10)

Q2. Discuss in detail the MOCVD method for preparation of nanoparticles. (10)

Q3. Explain the use of positive and negative resists and the lift off process in lithography . (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May -2018

P404-E-13 : Physics Of Nanomaterials

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

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Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2019

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Q3. Explain the variation of effective mass of an electron in a band. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2014

P 301: Nuclear and Particle Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Explain the principle processes through which gamma- rays interact with Matter. (10)

Q2. What is range and energy straggling? Expain. (10)

Q3. Explain the fabrication and working of surface barrier and Li ion drifted detectors . Mention the drawback of these detectors. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2015

P 301: Nuclear and Particle Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Assume that the deuteron potential is of square well type, obtain the relation between the range and depth of the potential. (10)

Q2. Explain the mechanism of production of scintillation in a NaI(Tl) crystal. (10)

Q3. Give the theory of Fermigas model and obtain expressions for the kinetic energy of protons and neutrons. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2016

P 301: Nuclear and Particle Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Describe the Rein-cowain experiment for the detection of neutrino. (10)

Q2. Discuss CP symmetry in neutral Kaon system and how Cronin-Fitch experiment demonstrated CP violation. (10)

Q3. Explain the two important processes through which fast electrons lose their nergy. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2017

P 301: Nuclear and Particle Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Explain the principle processes through which gamma- rays interact with Matter. (10)

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Q3. Explain the fabrication and working of surface barrier and Li ion drifted detectors . Mention the drawback of these detectors. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2018

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Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2014

P 101: Classical Mechanics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Explain the conservation of energy of a system of particle. (10)

Q2. Derive the Langrange's equation of motion for a holonomic system using D'Alemberts principle. (10)

Q3. State Kepler's laws of planetary motion and prove Kepler's second law. (10)

Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2015

P 101: Classical Mechanics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Define generalized momentum. Show that generalized momentum is constant if the corresponding coordinate is cyclic (10)

Q2. What are the pseudo forces? Write a note o Coriolis force. (10)

Q3. What is angular momentum? Describe the conservation of angular momentum of a system of particles. (10)

Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2016

P 101: Classical Mechanics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Derive Rutherford's scattering formula in the force field of an inverse square law of force. (10)

Q2. What are constraints? Give their classification with example. (10)

Q3. Starting from the radial equation of motion for a particle in a central potentital, show that the equation of the orbit is a conic section. (10)

Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2017

P 101: Classical Mechanics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Explain the conservation of energy of a system of particle. (10)

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Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2018

P 101: Classical Mechanics

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Note: Answer all the questions

Q1. Derive Rutherford's scattering formula in the force field of an inverse square law of force. (10)

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Q3. State Kepler's laws of planetary motion and prove Kepler's second law. (10)

Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2015

P 203: Quantum Mechanics - II

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. What is a Spherically symmetric potential? Write Schrodinger equation for a spherically symmetric potential in polar coordinates and separate it for each variables. (10)

Q2. Set up the Schrodinger equation for a particle in a three dimensional box of infinite height. Solve it for eigen functions and energy eigen values. (10)

Q3. Develop the time-dependent first order perturbation theory for a four fold degenerate state and obtain expression for energy eigen values. (10)

Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2016

P 203: Quantum Mechanics - II

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. What is WKB approximation? Give the WKB method of solving one-dimensional Schrodinger wave equation. Discuss its validity. (10)

Q2. Obtain and discuss Fermi Golden rule. (10)

Q3. Set up the Dirac Hamiltonian for a free particle and obtain the relations Between α and β appearing in it. (10)

Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2017

P 203: Quantum Mechanics - II

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Set up the Dirac relativistic wave equation for a free particle. Obtain its plane wave solution. (10)

Q2. What are the ortho and para helium states? Expain. (10)

Q3. What is Born approximation? Derive the expression for the scattering amplitude in this approximation and discuss its validity. (10)

Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2018

P 203: Quantum Mechanics - II

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Q1. What is a Spherically symmetric potential? Write Schrodinger equation for a spherically symmetric potential in polar coordinates and separate it for each variables. (10)

Q2. Obtain and discuss Fermi Golden rule. (10)

Q3. Develop the time-dependent first order perturbation theory for a four fold degenerate state and obtain expression for energy eigen values. (10)

Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2019

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Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2015

P 402: Numerical Analysis and Computational Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Describe the method of obtaining Newton's interpolation formula for a set of tabular values. (10)

Q2. Outline the Newton-Raphson method for finding roots of an equation. Comment on the errores involved in this method. (10)

Q3. Describe the general properties of Poisson distribution. State and prove Poisson distribution law. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2016

P 402: Numerical Analysis and Computational Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Find the error in the computation of an integral by Simpson's rule. (10)

Q2. Explain the various constant and variables in C- language. (10)

Q3. Explain the term loop statements, arrays and functions in C-programming. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2017

P 402: Numerical Analysis and Computational Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Discuss different possible errors of observation and measurements. (10)

Q2. Discuss a C-program for solving simultaneous linear algebraic equation. (10)

Q3. Write a note on multiuser operator system. Give examples. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2018

P 402: Numerical Analysis and Computational Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Describe the method of obtaining Newton's interpolation formula for a set of tabular values. (10)

Q2. Explain the various constant and variables in C- language. (10)

Q3. Describe the general properties of Poisson distribution. State and prove Poisson distribution law. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2019

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Note: Answer all the questions

Q1. Discuss different possible errors of observation and measurements. (10)

Q2. Outline the Newton-Raphson method for finding roots of an equation. Comment on the errores involved in this method. (10)

Q3. Write a note on multiuser operator system. Give examples. (10)

Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2014

P 103: Quantum Mechanics – I

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Starting from the plane wave solution for a free particle, arrive at the governing differential equation. (10)

Q2. What is a wave packet? What is group velocity? How is it identified with the velocity of a classical particle? (10)

Q3. Describe the equation of motion for the operator in the Heisenberg picture. (10)

Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2015

P 103: Quantum Mechanics – I

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Show that product of two Hermitian operators is Hermitian, if and only if they commute. (10)

Q2. How does the Heisenberg picture is different from the Schrodinger Picture? (10)

Q3. Prove that commuting observables possess a common set of eigen Functions. Also prove the converse. (10)

Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2016

P 103: Quantum Mechanics – I

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Using the ladder operator method, deduce the eigen value spectrum of J^2 , and Jz. (10)

Q2. Derive an expression for the transmission coefficient for a particle of Energy E incident on a potential barrier of height V and thickness "a" Where E‹V. (10)

Q3. State and prove the Ehrenfest's theorem for position operator. (10)

Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2017

P 103: Quantum Mechanics – I

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Starting from the plane wave solution for a free particle, arrive at the governing differential equation. (10)

Q2. How does the Heisenberg picture is different from the Schrodinger Picture? (10)

Q3. Describe the equation of motion for the operator in the Heisenberg picture. (10)

Bangalore City College

Department Of Physics

I Sem, M.Sc. Physics, Internal Examination, November -2018

P 103: Quantum Mechanics – I

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Using the ladder operator method, deduce the eigen value spectrum of J^2, and Jz. (10)

Q2. What is a wave packet? What is group velocity? How is it identified with the velocity of a classical particle? (10)

Q3. Prove that commuting observables possess a common set of eigen Functions. Also prove the converse. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2014

P 302 : Condensed Matter Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. What is meant by density of energy state in metals? Explain. (10)

Q2. Define and mention the properties of reciprocal lattice. (10)

Q3. Outline the Langevin theory of para-magnetism. State Meissner effect in super conductors. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2015

P 302 : Condensed Matter Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. What is Bloch function? Discuss the Kronig- Penny model for energy bands in solids. (10)

Q2. Give the theory of Hall-effect in semiconductors and its applications. (10)

Q3. Discuss Weiss molecular field theory of Ferromagnetism. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2016

P 302 : Condensed Matter Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Obtain the Lane's condition for X-ray diffraction. (10)

Q2. Write an expression for electrical conductivity of an intrinsic semiconductor and explain its terms. (10)

Q3. Give the characteristics of Orthorhombic system Bravias Lattice. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2017

P 302 : Condensed Matter Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Obtain expressions for the electronic and ionic polarizabilities. (10)

Q2. Explain various types of symmetry operations present in cubic crystal. (10)

Q3. On the basis of free electron theory of metals derive expressions for Electrical and thermal conductivity and hence establish Weidman-Franz Law. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2018

P 302 : Condensed Matter Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. What is meant by density of energy state in metals? Explain. (10)

Q2. Give the theory of Hall-effect in semiconductors and its applications. (10)

Q3. Give the characteristics of Orthorhombic system Bravias Lattice. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2014

P 304 : Material Science

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. What are ionic crystals? Obtain an expression for its cohesive energy. (10)

Q2. Explain the formation of Frenkle defects in solids. (10)

Q3. Describe ductile and brittle fracture of materials, Give examples. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2015

P 304 : Material Science

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Discuss the methods for strengthening materials against plastic deformation. (10)

Q2. Discuss the mechanism of electrical conductivity of ionic crystals with a suitable example. (10)

Q3. Explain the covalent bond in a hydrogen molecule according to Heitler-and London. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2016

P 304 : Material Science

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Give an overview of ionic and covalent bonding in solids with examples. (10)

Q2. Discuss the various popular matrix materials and mention their typical properties. (10)

Q3. Discuss solid solution and precipitation strengthening of crystalline materials. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2017

P 304 : Material Science

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. What are ionic crystals? Obtain an expression for its cohesive energy. (10)

Q2. Discuss the mechanism of electrical conductivity of ionic crystals with a suitable example. (10)

Q3. Describe ductile and brittle fracture of materials, Give examples. (10)

Bangalore City College

Department Of Physics

III Sem, M.Sc. Physics, Internal Examination, November-2018

P 304 : Material Science

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Discuss the methods for strengthening materials against plastic deformation. (10)

Q2. Explain the formation of Frenkle defects in solids. (10)

Q3. Explain the covalent bond in a hydrogen molecule according to Heitler-and London. (10)

Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2015

P 202: Electrodynamics and Plasma Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Outline the propagation of plane electromagnetic wave in conducting Media. (10)

Q2. Define scalar and vector potentials and explain their significance in electro-dynamics. (10)

Q3. State Biot-Savart Law. Calculate the magnetic field due to a straight current carrying wire. (10)

Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2016

P 202: Electrodynamics and Plasma Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1.State Ampere's Circuital law in magneto statics and show that magnetic field of a current is non-conservative. (10)

Q2. Discuss in detail the behavior of a plasma in electric and magnetic fields. (10)

Q3. Define a plasma. Obtain an expression for Debye length in plasma. (10)

Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2017

P 202: Electrodynamics and Plasma Physics

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Define electromagnetic field tensor. Express Maxwell's equation in terms of the field tensor. (10)

Q2. Describe the propagation of electromagnetic waves in plasma. (10)

Q3. Prove that retarded potentials satisfy Lorentz-Gauge condition. (10)

Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2018

P 202: Electrodynamics and Plasma Physics

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Bangalore City College

Department Of Physics

II Sem, M.Sc. Physics, Internal Examination, May-2019

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Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2015

P 403-E8 : Physics of Solids

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Describe with neat diagrams the edge and screw dislocations. (10)

Q2. Obtain the concentration of Schotky defects in an ionic crystal. (10)

Q3. Distinguish between photoelectric effect and photovoltaic effect. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2016

P 403-E8 : Physics of Solids

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Deduce the dispersion relation for a lattice having two atoms per Primitive cell. (10)

Q2. Obtain Fick's first and second law of diffusion in solids. (10)

Q3. Explain with neat diagram, the experimental determination of elastic constants using ultrasonic interferometer for solids. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2017

P 403-E8 : Physics of Solids

Time: 1 and ½ hours **Max. Marks : 30**

Note: Answer all the questions

Q1. Explain various formation mechanisms of colour centres. (10)

Q2. Discuss the Einstein theory of specific heat. (10)

Q2. Obtain the concentration of Schotky defects in an ionic crystal. (10)

Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2018

P 403-E8 : Physics of Solids

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Bangalore City College

Department Of Physics

IV Sem, M.Sc. Physics, Internal Examination, May-2019

P 403-E8 : Physics of Solids

Time: 1 and ½ hours **Max. Marks : 30**

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BANGALORE CITY COLLAGE

INTERNAL EXAMINATION IBSC ISEM

CHEMISTRY – I NOV 2018

Time : 1:30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 Define lever rule ?

2 Write a note on Tie lines .

3 Mention any two conditions for the formation of an ideal solution .

4 What is an Azeotropic mixture ?

5 Write a note on a Vant hoff factors.

II Answer any four of the following question (4 *5 = 20)

1 Write a note on desilversation of lead by parkes process .

2 Define surface tension . How does the surface tension of a liquid vary with temperature

3 How is osmotic pressure determined from the Berkely – Hartely method ?

4 Describe how the molecular weight of a non – volatile solute is determined by boiling point method .

5 Write any four applications of steam distillation .

1ST INTERNALS EXAMINATION FOR BBA -2019

DEPARTMENT OF COMMERCE AND MANAGEMENT

BANGALORE CITY COLLEGE

CHELIKERE, KALAYAN NAGAR

BENGALURU-560043

SUBJECT: MANAGEMENT PROCESS MAX MARKS: 30

COURSE: BBA (AVIATION) TIME: 1 ½ HOUR

SEMESTER: I

Answer the following questions each carrying 2 marks each: 2x2=4

1) What is decision making?
2) Name the types of planning?

Answer any two of the following questions each carrying 6 marks each: 6x6=12

1) Explain the principles of management?
2) What are the advantages and disadvantages of planning?
3) Explain the process of organizing?

Answer any one of the following questions each carrying 14 marks: 14x1=14

1) Briefly explain the principles of organization?
2) Explain methods and types of decision making?

1ST INTERNALS EXAMINATION FOR B.COM, BBA, AND BBA (AVIATION) -2019

DEPARTMENT OF COMMERCE AND MANAGEMENT

BANGALORE CITY COLLEGE

CHELIKERE, KALAYAN NAGAR

BENGALURU 560043

SUBJECT: INDIAN CONSTITUTION AND HUMAN RIGHTS MAX MARKS: 30

COURSE: B.COM, BBA AND BBA (AVIATION) TIME: 1 ½ HOUR

SEMESTER: I

Answer the following questions 1x10=10

1) Which of the following is not a fundamental right?
   a) Right to equality c)Right to property
   b) Right against exploitation d) Right to freedom of religion
2) When the constitution of India did came into force?
   a) 26th Nov 1949 c) 26th Nov 1950
   b) 26th Jan 1949 d) 26th Jan 1950
3) A preamble is ----------
   a) Fundamental right c) Directive principle
   b) Fundamental duty d) Introduction to the constitution
4) The methods of amendment of the constitution are:
   a) 3 c) 1
   b) 2 d) 6
5) Fundamental rights are extracted from which constitution?
   a) USA c) USSR
   b) UK d) New Zeland
6) Parliamentary form of government in India is extracted from which constitution?
   a) Germany c) USA
   b) Uk d) Australia
7) Which Article contains Right to Elementary Education?
   a) Article 21 c) Article 21(b)
   b) Article 21(a) d) Article 18
8) Expand NRI
   a) Non Resourceful Indians c) Neo Regional Indians
   b) Non Resident Indians d) Non Regional Indians
9) At present what is the number of schedule and parts of a Indian constitution
   a) 5 schedules 12 parts c) 8 schedules 10 parts
   b) 12 schedules 25 parts d) 10 schedules 20 parts
10) Who was the chairman of drafting committee of the constitution?
   a) Dr. Rajindra Prasad c) Sarvapalli Radhakrishnan
   b) Dr. B.R Ambedkar d) Sachidananda sinha

2x10=20

11) The name of the states and union territories and their territorial extent are mentioned in which schedule of the union constitution?
    a) 1st schedule
    b) 2nd schedule
    c) 3rd schedule
    d) 4th schedule
12) Which one of this is the primary source of Indian constitution?
    a) British constitution
    b) Irish constitution
    c) government of India act 1935
    d) German constitution
13) A design of the national flag was adopted by the constitution assembly of India in
    a) July 1947
    b) August 1947
    c) July 1948
    d) July 1950
14) The seats allotted to each state and duty is mentioned in schedule of the constitution
    a) 1st schedule
    b) 2nd schedule
    c) 3rd schedule
    d) 4th schedule

15) Who among the following was the first law minister of India?

    a) Jawaharlal Nehru
    b) Manulana Abul Kalam
    c) B.R. Ambedkar
    d) T. Krishna

15) In which one of the following year did Right to Information Act came into force
    a) 2003
    b) 2004
    c)2005
    d) 2006
16) Which one of the following Writs may be issued to enforce a fundamental right?
    a) Certiorari
    b) Habeas Corpus
    c) Mandamus
    d) prohibition
17) The Right to Vote in elections to a parliament is a
    a) Fundamental right
    b) Political right
    c) Legal right
    d) Natural right
18) Bicameralism means:
    a) Parliament consisting of 1 hour
    b) Parliament consisting of 5 hour
    c) parliament consisting of 2 hours
    d) parliament consisting of 6 hours
19) Which of the following cases the Supreme Court give a ruling that the preamble was a part of a constitution?
    a) Golaknath case
    b) Kesavananda bharti case
    c) sajjan singh case
    d) Berubari case

1ST INTERNALS EXAMINATION FOR B.COM, BBA, AND BBA (AVIATION) -2019

DEPARTMENT OF COMMERCE AND MANAGEMENT

BANGALORE CITY COLLEGE

CHELIKERE, KALAYAN NAGAR

BENGALURU 560043

SUBJECT: INDIAN CONSTITUTION AND HUMAN RIGHTS MAX MARKS: 30

COURSE: B.COM, BBA AND BBA (AVIATION) TIME: 1 ½ HOUR

SEMESTER: I

Answer the following questions 1x10=10

1) The word science comes from the Latin "scientia" meaning.
   a) Natural phenomena
   b) Knowledge
   c) physical evidence
   d) experimentation
2) --------- is a systematic and logical approach to discovering how things in the universe work.
   a) History
   b) Astrology
   c) Science
   d) Mathematics
3) The Einstein's enquiry into relativity theory is of
   a) Inexact science
   b) Natural science
   c) Soft science
   d) Pure science
4) A social science is a systematic study of
   a) Natural world
   b) Models of reality
   c) Human behavior and society
   d) Experimentation
5) Science refers to
   a) A system of achieving knowledge
   b) A system of natural phenomena
   c) A system of physical evidence
   d) A system of experimentation
6) The term natural philosopher or just philosopher was used for:
   a) Journalist
   b) Scientist
   c) Archaeologist
   d) Criminologist
7) The English word scientist was first coined by.
   a) Landsteiner
   b) Oldham
   c) Einstein
   d) William whewell
8) Evolution is the study of
   a) Structure of an animal or plant
   b) Life on the earth and in space
   c) Dealing with plant life
   d) Evolutionary process that Produced the diversity of life
9) Development of science depends on
   a) Observation
   b) Experiment
   c) Observation and practicality
   d) Theoretical
10) Who is Martin Behaim
   a) Navigator
   b) Mapmaker
   c) Navigator and mapmaker
   d) Mathematician

2x2=20

11) The first compound microscope invented by ----------
    a) Johannes kepler
    b) Christopher merrett
    c) Zacharias Janssen
    d) Nicholas Copernicus
12) Which stage scientists do not always possess exquisite technical skills?
    a) 2nd stage
    b) 3rd stage
    c) 4th stage
    d) 1st stage
13) Toxicology is the study of
    a) Structure of an animal or plant
    b) The nature, effects and detection of poisons
    c) All aspects of immune system
    d) Micro-organisms
14) Which stage scientists do not always posses exquisite technical skills?
    a) 2nd stage
    b) 3rd stage
    c) 4th stage
    d) 1st stage
15) Who laid down the first accurate laws of motion for masses?
    a) Nicholas Copernicus
    b) Galileo
    c) Oldham
    d) Einstein
16) The Renaissance birth place
    a) Italy
    b) India
    c) America
    d) Australia
17) New ways of thinking , sparked by a philosophy known as
    a) Humanism
    b) Socialism
    c) Politics
    d) Behaviorism
18) The Renaissance was a time of great ---------- change in Europe
    a) Social
    b) Cultural
    c) Both a and b
    d) None of these
19) In 1543 --------- proposed to switch the places of the earth and the sun
    a) Nicholas Copernicus
    b) Galileo
    c) Oldham
    d) Einstein
20) Genetics is the study of
    a) Heredity
    b) Cell structure and function
    c) Dealing with plant life
    d) Human evolution, variation and Classification.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
I – INTERNAL TEST 2014
BTT-301

MAX MARKS 30

ANSWER ANY SIX- **6x5=30**

1. What is Crossing Over?
2. Write a note on Numerical Aberrations.
3. Copy choice theory of crossing over.
4. What is Bridges theory of non-disjunction?
5. Autopolyploidy
6. Explain Stern's experiment of Crossing over.
7. Write a note on factors affecting crossing over.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOCHEMISTRY
II – INTERNAL TEST 2014
BTT-301

MAX MARKS 30

ANSWER ANY FIVE **5x2=10**

1. What is Linkage?
2. X-Linked Inheritance
3. Reciprocal Cross
4. Coupling and Repulsion
5. Types of Sex Linkage
6. Complete Linkage

ANSWER ANY FIVE **5x4=20**

1. Explain Sex Linkage in Drosophila.
2. Explain plastid Inheritance.
3. Explain Chromosomal theory of inheritance.
4. Male sterility in plants
5. Incomplete linkage
6. Explain attached X- chromosome

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
I– INTERNAL TEST 2015
BTT-301

MAX MARKS 30

ANSWER ANY SIX- **6x5=30**

1. Explain Nucleosome model of DNA
2. Write a note on Polytene Chromosome.
3. Differentiate between Prokaryotic and Eukaryotic Chromosome.
4. Banding pattern of chromosome.
5. Describe Euchromatin and Heterochromatin
6. Write about Human Karyotype.
7. Write a note on Lampbrush chromosome.
8. Write a note on Telomeres.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOCHEMISTRY
II – INTERNAL TEST 2015
BTT-301

MAX MARKS 30

ANSWER ANY FIVE **5x2=10**

1. Deletion and Inversion
2. Maternal Inheritance
3. Linkage
4. Incomplete linkage
5. Nuclear Inheritance
6. Reciprocal Cross

ANSWER ANY FIVE **5x4=20**

1. Kappa particles in Paramecium.
2. Explain Nullisomy with an example.
3. Explain Chromosomal theory of inheritance.
4. Explain Euploidy
5. Petite strains of wheat.
6. CMS in Maize

Bangalore City College

B.Sc. III Semester 2016

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Heterochromatin

2. Idiogram

3. Allele

4. Euchromatin

5. Heredity

Section-B

II. Answer any Two of the following- **2x5=10**

6. Explain Unineme model of DNA.

7. Describe the banding pattern of chromosome.

8. Draw a neat labelled diagram of Polytene chromosome.

Section-C

III. Answer any one of the following - **1x10=10**

9. Mention the difference between Prokaryotic and Eukaryotic Chromosome.

10. Describe the structure and functions of B Chromosome.

Bangalore City College

B.Sc. III Semester 2016

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Cytoplasmic Inheritance

2. Linkage

3. Linkage groups

4. What is X-Y linked inheritance?

5. Incomplete Linkage

6. Crossing Over

Section-B

II. Answer any four of the following- **4x5=20**

6. Synaptonemal Complex

7. Explain plastid inheritance with example.

8. Discuss on CMS in Maize

9. Explain Sex linkage in Drosophila.

10. Define Sutton's Hypothesis of linkage.

Section-C

III. Answer any one of the following - **1x10=10**

11. Describe-

a. Plastid Inheritance

b. Sex linked genes in Moth

12. Write a note on Mitochondrial DNA.

Bangalore City College

B.Sc. III Semester 2017

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Chromosome

2. Genes

3. Telomere

4. Euchromatin

5. Karyotype

Section-B

II. Answer any Two of the following- **2x5=10**

6. Nucleosome model of DNA.

7. Draw a neat labelled diagram of Polytene chromosome.

8. Describe human karyotype.

Section-C

III. Answer any one of the following - **1x10=10**

9. Mention the difference between Euchromatin and Heterochromatin.

10. Describe the structure and functions of Chromosome.

Bangalore City College

B.Sc. III Semester 2017

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Coupling and Repulsion

2. What is attached X chromosome?

3. Abraxix and Drosophila type of sex linkage

4. What is Y linked inheritance?

5. Nuclear Inheritance

Section-B

II. Answer any four of the following- **4x5=20**

6. Kappa particles in Paramecium.

7. Explain plastid inheritance with example.

8. Petite strains of Yeast.

9. Explain Chromosomal theory of inheritance.

10. Define Linkage with example.

Section-C

III. Answer any one of the following - **1x10=10**

11. Describe-

a. Complete and Incomplete linkage

b. Factors affecting linkage

12. Write a note on Chloroplast DNA.

Bangalore City College

B.Sc. III Semester 2018

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Homologous and Heterologous Chromosome

2. C-Banding and Q-Banding

3. Genes and Alleles

4. Linker DNA and Core DNA

5. Facultative and Constitutive Heterochromatin

Section II. Answer any Two of the following- **2x5=10**

6. Explain Multistranded model of DNA.

7. Describe the structure of Polytene chromosome.

8. Describe Lampbrush chromosome.

Section-C

III. Answer any one of the following - **1x10=10**

11. Explain Chromosome theory of inheritance.

12. Explain ultra structure of Eukaryotic chromosome.

Bangalore City College

B.Sc. III Semester 2018

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer any Five of the following- **5x2=10**

1. What is Non- disjunction?

2. What is X-Y linked inheritance?

3. What is attached X chromosome?

4. What is X linked inheritance?

5. Define two types of sex linkage.

6. What is Linkage?

7. What is Y linked inheritance?

Section-B

II. Answer any four of the following- **4x5=20**

6. Explain Bridges theory of Non-disjunction.

7. Explain Linkage in Maize.

8. Explain the inheritance of Kappa particles.

9. Define Reciprocal cross.

10. Explain Incomplete Linkage.

Section-C

III. Answer any one of the following - **1x10=10**

11. Explain Sex linkage in Poultry and Drosophila.

12. Throw a light on Coupling and Repulsion hypothesis.

Bangalore City College

B.Sc. I Semester 2014

Internal Assessment-I

Max. Marks-30

I.Answer any four of the following- **4x5=20**

1.Explain Down's Syndrome.

2.Explain the structure and function of Mitochondria.

3.Explain Mendel's Laws of inheritance.

4.What is sex determination? Explain ZZ-ZO System.

5. What is a chromosome? Add a note on its types based on centromeric position.

II.Answer any one of the following- **10x1=10**

6. Explain in detail the stages involved in Meiosis.

7. Explainin detail the mechanism of programmed cell death.

Bangalore City College

B.Sc. I Semester 2014

Internal Assessment-II

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. Microtubules

2. Ribosomes

3. mRNA

4. Kappa Particles

5. Autopolyploid

II. Answer any two of the following- **10x2=20**

6. What is mutation? Describe chemical mutagens and their mode of actions.

7. Explain-

a. Turner' Syndrome

b. Cri-Du-Chat Syndrome

8.Illustrate the molecular mechanism of crossing over.

Bangalore City College

B.Sc. I Semester 2015

Internal Assessment-I

Max. Marks-30

I.Write short notes on the following- **5x2=10**

1. Peroxisomes

2.Allosome

3.Telomere

4. Kappa Particles

5. Nucleolus

II.Answer any two of the following- **10x2=20**

6. What are supplementary genes? Explain it's mechanism and significance.

7. What is crossing over? Explain it's mechanism and significance.

8.What is cytoplasmic inheritance? Describe with reference to Mirabilsjalapa.

Bangalore City College

B.Sc. I Semester 2015

Internal Assessment-II

Max. Marks-40

I.Answer any four of the following- **4x5=20**

1.Explain Klinefelter's Syndrome.

2.Explain the structure of Lampbrush Chromosome.

3.Explain Epistasis with suitable example.

4.What is Amoeboid movement?

5. State Law of Segregation with a suitable example.

II.Answer any two of the following- **10x2=20**

6. Give a detailed account of prophase I of Meiosis. Add a note on it's significance

7. In man allosomal disorders can lead to sexual abnormalities. Discuss

8.Describe the ultrastructure of chromosome and add a note on evolution of modern wheat.

Bangalore City College

B.Sc. I Semester 2016

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. What is collenchyma?

2. Microtubules

3. Ribosome

4. Vacuole

5. Cell theory

Section-B

II. Answer any Two of the following- **2x5=10**

6. Describe the ultrastructure and functions of chloroplast.

7. With the help of neat labelled diagram define Nucleus.

8. Point out the main difference between Prokaryotic and Eukaryotic cells.

Section-C

III. Answer any one of the following - **1x10=10**

9. Explain tight junction and Gap Junction.

10. Write the functions of Endoplasmic Reticulum and Mitochondria.

Bangalore City College

B.Sc. I Semester 2016

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. Genotype and Phenotype

2. Nucleotide and Nucleoside

3. Karyotype and Idiogram

4. Telomere

5. Dihybrid Cross

Section-B

II. Answer any four of the following- **4x5=20**

6. Explain the Principle of Dominance.

7. Down Syndrome

8. Explain the structure of DNA.

9. Lampbrush Chromosomes

10. Incomplete Dominance

Section-C

III. Answer any one of the following - **1x10=10**

11. Give an account of Nucleosome model of DNA.

12. What are the Complementary genes? In sweet peas, factor C or P alone produces white flowers and when together produces purple flowers. Give the phenotype ratios in the progenies of the following crosses-

a. Cc Pp X cc Pp

b. CC pp X cc Pp

c. Cc Pp X Cc Pp

d. Cc Pp X Cc pp

Bangalore City College

B.Sc. I Semester 2017

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Sclerenchyma

2. Microtubules

3. Lysosomes

4. Merismatic Tissue

5. Desmosomes

Section-B

II. Answer any Two of the following- **2x5=10**

6. Fluid Mosaic Model.

7. Draw a neat labelled diagram of Neuron.

8. Describe Nucleus.

Section-C

III. Answer any one of the following - **1x10=10**

9. Explain the structural organization of Eukaryotic cell.

10. Describe the structure and functions of Golgi complex.

Bangalore City College

B.Sc. I Semester 2017

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Euchromatin

2. Multiple Alleles

3. Genes

4. Structure of ATP (Only Diagram)

5. Monohybrid Cross

Section-B

I.Answer any four of the following- **4x5=20**

1. Clover leaf model of t-RNA

2. Explain the structure of Polytene Chromosome.

3. Explain Epistasis with suitable example.

4. Explain Klinefelter's Syndrome.

5. State Law of Complete Dominance with a suitable example.

Section-C

III. Answer any one of the following - **1x10=10**

6. What are supplementary genes? Explain it's mechanism and significance.

7. Describe the Unineme model and Nucleosome model of Chromosome Structure.

Bangalore City College

B.Sc. I Semester 2018

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Cell

2. Microtubules

3. Proteins

4. collenchyma

5. Cell theory

Section-B

II. Answer any Two of the following- **2x5=10**

6. Describe the ultrastructure and functions of Mitochondria.

7. Discuss the detailed classification of animal tissues.

8. With the help of neat labelled diagram define Cell wall.

Section-C

III. Answer any one of the following - **1x10=10**

9. Explain the mechanism of membrane transport.

10. Discuss the following-

a. Sandwich Model

b. Model of Robertson

Bangalore City College

B.Sc. I Semester 2018

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. Deletion

2. Apoptosis

3. Epistasis

4. Cell Senescence

5. Inversion

Section-B

II. Answer any four of the following- **4x5=20**

6. Free Radical Theory of Aging

7. Inheritance of ABO blood group

8. Explain complementary genes

9. Structural chromosomal abberations

10. Characteristics of Multiple Alleles

Section-C

III. Answer any one of the following - **1x10=10**

11. What are the multiple factors? Explain by the inheritance of Skin colour in human beings.

12. What is PCD? Describe the various stages involved in this process.

Bangalore City College

B.Sc. I Semester 2019

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Desmosomes

2. Vacuole

3. Lysosomes

4. Epithelial Tissue

5. Sclerenchyma

Section-B

II. Answer any Two of the following- **2x5=10**

6. Robertson Model.

7. Draw a neat labelled diagram of Nucleus.

8. Describe tight junction.

Section-C

III. Answer any one of the following - **1x10=10**

9. Explain the structural organization of Animal cell.

10. Describe the structure and functions of Chloroplast.

Bangalore City College

B.Sc. I Semester 2019

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Genotype and Phenotype

2. Back Cross and Test Cross

3. Genes and Alleles

4. Karyotype and Idiogram

5. Monohybrid Cross and Dihybrid cross

Section-B

II. Answer any four of the following- **4x5=20**

6. Explain the Principle of Segregation.

7. Cri-du chat Syndrome

8. Explain the structure of DNA.

9. Polytene Chromosomes

10. Incomplete Dominance

Section-C

III. Answer any one of the following - **1x10=10**

11. Explain ultrastructure of chromosome and add a note on Nucleosome model .

12. In Poultry the genes for Rose comb, R and pea comb, P if present together, produce walnut comb. The recessive alleles of both, when present together in homozygous condition, produce single comb.

What will be the comb character of the offspring of the following crosses?

a. Rr pp X rr Pp

b. Rr pp X Rr pp

Bangalore City College

B.Sc. I Semester 2014

Internal Assessment-I

Max. Marks-30

I.Answer any four of the following- **4x5=20**

1.Explain Down's Syndrome.

2.Explain the structure and function of Mitochondria.

3.Explain Mendel's Laws of inheritance.

4.What is sex determination? Explain ZZ-ZO System.

5. What is a chromosome? Add a note on its types based on centromeric position.

II.Answer any one of the following- **10x1=10**

6. Explain in detail the stages involved in Meiosis.

7. Explainin detail the mechanism of programmed cell death.

Bangalore City College

B.Sc. I Semester 2014

Internal Assessment-II

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. Microtubules

2. Ribosomes

3. mRNA

4. Kappa Particles

5. Autopolyploid

II. Answer any two of the following- **10x2=20**

6. What is mutation? Describe chemical mutagens and their mode of actions.

7. Explain-

a. Turner' Syndrome

b. Cri-Du-Chat Syndrome

8.Illustrate the molecular mechanism of crossing over.

Bangalore City College

B.Sc. I Semester 2015

Internal Assessment-I

Max. Marks-30

I.Write short notes on the following- **5x2=10**

1. Peroxisomes

2.Allosome

3.Telomere

4. Kappa Particles

5. Nucleolus

II.Answer any two of the following- **10x2=20**

6. What are supplementary genes? Explain it's mechanism and significance.

7. What is crossing over? Explain it's mechanism and significance.

8.What is cytoplasmic inheritance? Describe with reference to Mirabilsjalapa.

Bangalore City College

B.Sc. I Semester 2015

Internal Assessment-II

Max. Marks-40

I.Answer any four of the following- **4x5=20**

1.Explain Klinefelter's Syndrome.

2.Explain the structure of Lampbrush Chromosome.

3.Explain Epistasis with suitable example.

4.What is Amoeboid movement?

5. State Law of Segregation with a suitable example.

II.Answer any two of the following- **10x2=20**

6. Give a detailed account of prophase I of Meiosis. Add a note on it's significance

7. In man allosomal disorders can lead to sexual abnormalities. Discuss

8.Describe the ultrastructure of chromosome and add a note on evolution of modern wheat.

Bangalore City College

B.Sc. I Semester 2016

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. What is collenchyma?

2. Microtubules

3. Ribosome

4. Vacuole

5. Cell theory

Section-B

II. Answer any Two of the following- **2x5=10**

6. Describe the ultrastructure and functions of chloroplast.

7. With the help of neat labelled diagram define Nucleus.

8. Point out the main difference between Prokaryotic and Eukaryotic cells.

Section-C

III. Answer any one of the following - **1x10=10**

9. Explain tight junction and Gap Junction.

10. Write the functions of Endoplasmic Reticulum and Mitochondria.

Bangalore City College

B.Sc. I Semester 2016

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. Genotype and Phenotype

2. Nucleotide and Nucleoside

3. Karyotype and Idiogram

4. Telomere

5. Dihybrid Cross

Section-B

II. Answer any four of the following- **4x5=20**

6. Explain the Principle of Dominance.

7. Down Syndrome

8. Explain the structure of DNA.

9. Lampbrush Chromosomes

10. Incomplete Dominance

Section-C

III. Answer any one of the following - **1x10=10**

11. Give an account of Nucleosome model of DNA.

12. What are the Complementary genes? In sweet peas, factor C or P alone produces white flowers and when together produces purple flowers. Give the phenotype ratios in the progenies of the following crosses-

a. Cc Pp X cc Pp

b. CC pp X cc Pp

c. Cc Pp X Cc Pp

d. Cc Pp X Cc pp

Bangalore City College

B.Sc. I Semester 2017

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Sclerenchyma

2. Microtubules

3. Lysosomes

4. Merismatic Tissue

5. Desmosomes

Section-B

II. Answer any Two of the following- **2x5=10**

6. Fluid Mosaic Model.

7. Draw a neat labelled diagram of Neuron.

8. Describe Nucleus.

Section-C

III. Answer any one of the following - **1x10=10**

9. Explain the structural organization of Eukaryotic cell.

10. Describe the structure and functions of Golgi complex.

Bangalore City College

B.Sc. I Semester 2017

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Euchromatin

2. Multiple Alleles

3. Genes

4. Structure of ATP (Only Diagram)

5. Monohybrid Cross

Section-B

I.Answer any four of the following- **4x5=20**

1. Clover leaf model of t-RNA

2. Explain the structure of Polytene Chromosome.

3. Explain Epistasis with suitable example.

4. Explain Klinefelter's Syndrome.

5. State Law of Complete Dominance with a suitable example.

Section-C

III. Answer any one of the following - **1x10=10**

6. What are supplementary genes? Explain it's mechanism and significance.

7. Describe the Unineme model and Nucleosome model of Chromosome Structure.

Bangalore City College

B.Sc. I Semester 2018

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Cell

2. Microtubules

3. Proteins

4. collenchyma

5. Cell theory

Section-B

II. Answer any Two of the following- **2x5=10**

6. Describe the ultrastructure and functions of Mitochondria.

7. Discuss the detailed classification of animal tissues.

8. With the help of neat labelled diagram define Cell wall.

Section-C

III. Answer any one of the following - **1x10=10**

9. Explain the mechanism of membrane transport.

10. Discuss the following-

a. Sandwich Model

b. Model of Robertson

Bangalore City College

B.Sc. I Semester 2018

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. Deletion

2. Apoptosis

3. Epistasis

4. Cell Senescence

5. Inversion

Section-B

II. Answer any four of the following- **4x5=20**

6. Free Radical Theory of Aging

7. Inheritance of ABO blood group

8. Explain complementary genes

9. Structural chromosomal abberations

10. Characteristics of Multiple Alleles

Section-C

III. Answer any one of the following - **1x10=10**

11. What are the multiple factors? Explain by the inheritance of Skin colour in human beings.

12. What is PCD? Describe the various stages involved in this process.

Bangalore City College

B.Sc. I Semester 2019

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Desmosomes

2. Vacuole

3. Lysosomes

4. Epithelial Tissue

5. Sclerenchyma

Section-B

II. Answer any Two of the following- **2x5=10**

6. Robertson Model.

7. Draw a neat labelled diagram of Nucleus.

8. Describe tight junction.

Section-C

III. Answer any one of the following - **1x10=10**

9. Explain the structural organization of Animal cell.

10. Describe the structure and functions of Chloroplast.

Bangalore City College

B.Sc. I Semester 2019

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Genotype and Phenotype

2. Back Cross and Test Cross

3. Genes and Alleles

4. Karyotype and Idiogram

5. Monohybrid Cross and Dihybrid cross

Section-B

II. Answer any four of the following- **4x5=20**

6. Explain the Principle of Segregation.

7. Cri-du chat Syndrome

8. Explain the structure of DNA.

9. Polytene Chromosomes

10. Incomplete Dominance

Section-C

III. Answer any one of the following - **1x10=10**

11. Explain ultrastructure of chromosome and add a note on Nucleosome model .

12. In Poultry the genes for Rose comb, R and pea comb, P if present together, produce walnut comb. The recessive alleles of both, when present together in homozygous condition, produce single comb.

What will be the comb character of the offspring of the following crosses?

a. Rr pp X rr Pp

b. Rr pp X Rr pp

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
I – INTERNAL TEST 2014
BTT-301

MAX MARKS 30

ANSWER ANY SIX- **6x5=30**

1. What is Crossing Over?
2. Write a note on Numerical Aberrations.
3. Copy choice theory of crossing over.
4. What is Bridges theory of non-disjunction?
5. Autopolyploidy
6. Explain Stern's experiment of Crossing over.
7. Write a note on factors affecting crossing over.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOCHEMISTRY
II – INTERNAL TEST 2014
BTT-301

MAX MARKS 30

ANSWER ANY FIVE **5x2=10**

1. What is Linkage?
2. X-Linked Inheritance
3. Reciprocal Cross
4. Coupling and Repulsion
5. Types of Sex Linkage
6. Complete Linkage

ANSWER ANY FIVE **5x4=20**

1. Explain Sex Linkage in Drosophila.
2. Explain plastid Inheritance.
3. Explain Chromosomal theory of inheritance.
4. Male sterility in plants
5. Incomplete linkage
6. Explain attached X- chromosome

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
I– INTERNAL TEST 2015
BTT-301

MAX MARKS 30

ANSWER ANY SIX- **6x5=30**

1. Explain Nucleosome model of DNA
2. Write a note on Polytene Chromosome.
3. Differentiate between Prokaryotic and Eukaryotic Chromosome.
4. Banding pattern of chromosome.
5. Describe Euchromatin and Heterochromatin
6. Write about Human Karyotype.
7. Write a note on Lampbrush chromosome.
8. Write a note on Telomeres.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOCHEMISTRY
II – INTERNAL TEST 2015
BTT-301

MAX MARKS 30

ANSWER ANY FIVE **5x2=10**

1. Deletion and Inversion
2. Maternal Inheritance
3. Linkage
4. Incomplete linkage
5. Nuclear Inheritance
6. Reciprocal Cross

ANSWER ANY FIVE **5x4=20**

1. Kappa particles in Paramecium.
2. Explain Nullisomy with an example.
3. Explain Chromosomal theory of inheritance.
4. Explain Euploidy
5. Petite strains of wheat.
6. CMS in Maize

Bangalore City College

B.Sc. III Semester 2016

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Heterochromatin

2. Idiogram

3. Allele

4. Euchromatin

5. Heredity

Section-B

II. Answer any Two of the following- **2x5=10**

6. Explain Unineme model of DNA.

7. Describe the banding pattern of chromosome.

8. Draw a neat labelled diagram of Polytene chromosome.

Section-C

III. Answer any one of the following - **1x10=10**

9. Mention the difference between Prokaryotic and Eukaryotic Chromosome.

10. Describe the structure and functions of B Chromosome.

Bangalore City College

B.Sc. III Semester 2016

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Cytoplasmic Inheritance

2. Linkage

3. Linkage groups

4. What is X-Y linked inheritance?

5. Incomplete Linkage

6. Crossing Over

Section-B

II. Answer any four of the following- **4x5=20**

6. Synaptonemal Complex

7. Explain plastid inheritance with example.

8. Discuss on CMS in Maize

9. Explain Sex linkage in Drosophila.

10. Define Sutton's Hypothesis of linkage.

Section-C

III. Answer any one of the following - **1x10=10**

11. Describe-

a. Plastid Inheritance

b. Sex linked genes in Moth

12. Write a note on Mitochondrial DNA.

Bangalore City College

B.Sc. III Semester 2017

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Chromosome

2. Genes

3. Telomere

4. Euchromatin

5. Karyotype

Section-B

II. Answer any Two of the following- **2x5=10**

6. Nucleosome model of DNA.

7. Draw a neat labelled diagram of Polytene chromosome.

8. Describe human karyotype.

Section-C

III. Answer any one of the following - **1x10=10**

9. Mention the difference between Euchromatin and Heterochromatin.

10. Describe the structure and functions of Chromosome.

Bangalore City College

B.Sc. III Semester 2017

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Coupling and Repulsion

2. What is attached X chromosome?

3. Abraxix and Drosophila type of sex linkage

4. What is Y linked inheritance?

5. Nuclear Inheritance

Section-B

II. Answer any four of the following- **4x5=20**

6. Kappa particles in Paramecium.

7. Explain plastid inheritance with example.

8. Petite strains of Yeast.

9. Explain Chromosomal theory of inheritance.

10. Define Linkage with example.

Section-C

III. Answer any one of the following - **1x10=10**

11. Describe-

a. Complete and Incomplete linkage

b. Factors affecting linkage

12. Write a note on Chloroplast DNA.

Bangalore City College

B.Sc. III Semester 2018

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Homologous and Heterologous Chromosome

2. C-Banding and Q-Banding

3. Genes and Alleles

4. Linker DNA and Core DNA

5. Facultative and Constitutive Heterochromatin

Section II. Answer any Two of the following- **2x5=10**

6. Explain Multistranded model of DNA.

7. Describe the structure of Polytene chromosome.

8. Describe Lampbrush chromosome.

Section-C

III. Answer any one of the following - **1x10=10**

11. Explain Chromosome theory of inheritance.

12. Explain ultra structure of Eukaryotic chromosome.

Bangalore City College

B.Sc. III Semester 2018

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer any Five of the following- **5x2=10**

1. What is Non- disjunction?

2. What is X-Y linked inheritance?

3. What is attached X chromosome?

4. What is X linked inheritance?

5. Define two types of sex linkage.

6. What is Linkage?

7. What is Y linked inheritance?

Section-B

II. Answer any four of the following- **4x5=20**

6. Explain Bridges theory of Non-disjunction.

7. Explain Linkage in Maize.

8. Explain the inheritance of Kappa particles.

9. Define Reciprocal cross.

10. Explain Incomplete Linkage.

Section-C

III. Answer any one of the following - **1x10=10**

11. Explain Sex linkage in Poultry and Drosophila.

12. Throw a light on Coupling and Repulsion hypothesis.

1ST INTERNALS EXAMINATION FOR B.COM AND BBA -2019

DEPARTMENT OF COMMERCE AND MANAGEMENT

BANGALORE CITY COLLEGE

CHELIKERE, KALAYAN NAGAR

BENGALURU 560043

SUBJECT: INDIAN CONSTITUTION AND HUMAN RIGHTS MAX MARKS: 30

COURSE: B.COM AND BBA TIME: 1 ½ HOUR

SEMESTER: III

Answer all the questions. Each carries 2 marks: 2x2=4

1. What is goodwill?
2. State any four factors affecting goodwill?

Answer all the questions. Each carries 6 marks: 6x6=12

1. The net profits of a business for the past 5 years are 80000, 85000, 94000 and 96000 respectively. Number of years of purchase is 3 years. The capital employed in the business is 800000. NRR expected is 10% of average capital employed. The weights for each year of profits are 1,2,3,4 and 5. Calculate the goodwill on the basis of:
   a. Weighted average method
   b. Capitalization of average profits.

2. 'A' limited agreed to purchase the business of a sole trader and for that purpose goodwill is to be valued at 3 years purchase of the average of previous 4 years adjusted profit. The profits for the year ending 31/3/2013, 2014, 2015 and 2016 were as follows: 40000, 48000, 50000 and 60000.
   Additional information:
   a. On 1/7/2015 a major repair expenditure to plant and machinery for 12000 were charged to profit and loss account. This was agreed to be capitalized for goodwill subject to 10% p.a. depreciation on reducing balance method.
   b. The closing stock for the year ending 2014 was overvalued by Rs. 4800.
   c. In order to recover cost of management, an amount charge of Rs. 9600 should be made for valuation of goodwill. Compute the value of goodwill.

Answer the following questions: 14x1=14

1. From the following particulars relating to the business compute the value of the goodwill on the basis of 3 years of purchase of super profits taking average of last 4 years. Fixed assets 800000, current assets 80000, current liabilities 160000, NRR 15%. Managerial remuneration is employed with 10000 p.a. Profits for the last 4 years are 120000, 140000, 130000 and 150000?

Bangalore City College
Internal Assessment 2019
Department of commerce and management
3rd Semester BBA
Corporate Environment

Time : 1 hour 30 minutes **Max Marks : 30**

Section A (2 marks each *any 2 Questions= 4 marks)

1) what do you mean by Joint Stock Company?
2) What do you mean by Corporate Social Responsibility?
3) What is Prospectus?
4) What is Capital?

Section B (6 marks each* any 2 Questions= 12 marks

5) What are the characteristics features of a Company?
6) Write down the Clauses of Memorandum of Association.
7) What are the types of Preference Shares?

Section C (14 marks * any 1 Questions= 14 marks)

8) Briefly explain the Contents of Articles of Association and Contents of Prospectus.
9) What are the kinds of Capital?

*****All the best*****

Bangalore City College
Internal Assessment 2019
Department of commerce and management
3rd Semester BBA (Aviation)
Production and Material Management

Time : 1 hour 30 minutes **Max Marks : 30**

Section A (2 marks each *any 2 Questions= 4 marks)

1) What do you means by Production management?
2) What is Plant Layout?
3) What do you mean by Material Handling?
4) What is method study?

Section B (6 marks each* any 2 Questions= 12 marks

5) What are the functions of Production Management?
6) What are the Principles of Plant Layout?

Section C (14 marks * any 1 Questions= 14 marks)

7) Briefly explain the Principles of material Handling?
8) What are the criteria for selecting the Material Handling equipment?

*****All the best*****

Bangalore City College
Internal Assessment 2019
Department of commerce and management
V Semester BBA
Financial Markets and Services

Time : 1 hour 30 minutes **Max Marks : 30**

Section A (2 marks each *any 2 Questions= 4 marks)

1) what do you mean by Financial Market?
2) What is ATM?
3) Who are the Players of Primary Market.

Section B (6 marks each* any 2 Questions= 12 marks

4) What are the Role of Financial Markets?
5) Explain the Classification of Financial Markets.
6) What are the instruments in Primary Market?
7) Difference Between Credit Cards and Debit Cards?

Section C (14 marks * any 1 Questions= 14 marks)

8) What are the merits and Demerits of Primary markets?
9) What are the functions of Secondary Markets?

*****All the best*****

Bangalore City College
Internal Assessment 2019
Department of commerce and management
V Semester B.COM
Entrepreneurship Development

Time : 1 hour 30 minutes **Max Marks : 30**

Section A (2 marks each *any 2 Questions= 4 marks)

1) Who is an Entrepreneur?
2) What do you mean by small scale industries?
3) What do you mean by Tiny Industries?

Section B (6 marks each* any 2 Questions= 12 marks

4) What are the qualities of an Successful Entrepreneur?
5) What are the factors influencing Women Entrepreneurship?
6) What are the Role of Small Scale Industries?

Section C (14 marks * any 1 Questions= 14 marks)

7) What are the problems faced by the women Entrepreneurs and list down the remedies to overcome the problems. Explain.
8) What are the Classification of Entrepreneurs?
9) what are the problems faced by SSI in India.

*****All the best*****

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION- 2015, APRIL 2015

ORGANIC SYNTHESIS

Time : 1: 30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 What is DIOP ? llustrate their use in organic synthesis with an example .

2 Azulene has a permanent dipole moment ? why ?

3 What are double diastereoselection ? Explain with on example .

4 Draw a structure of [12] – crown 4 ether . why it forms stable complex with lithium but not with potassium?

5 what is atom efficiency ?

II Answer any four of the following questions (4*5 = 20)

1 llustrate stereospecific and stereoselective reaction .

2 Define the terms asymmetric synthesis . state and illustrate crams rule of asymmetric induction .

3 Explain the use of (+) and (-) DET in asymmetric epoxidation .

4 Give the products for the degradation of peptides by using solid phase – edman degradatrion techniques .

5 Write a note on the sonochemical esterification .

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION- MAY 2015

ORGANIC SYNTHESIS

Time : 1: 30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 what is DIOP? Mention its special features .

2 What are ionic liquids ? illustrate their use in organic synthesis with an example .

3 IIustrate with an example how sonication is effective in o- alkyiation of lactams .

4 What is double diastereoselection ?

5 Bring out two difference between fumigants and contract insecticides .

II Answer question one compulsory and any three of the remaining .(4* 5=20)

1 Describe the mechanism of stereoselective reduction of olefin in presence of ?(S,S) – CHIRAPHOS .

2 Explain the mechanism of diasteroselective oxidation with an example

3 Discusses the properties of polymer supported reagents . what are their main advantages in organic synthesis .

4 Discuss the different steps involved in the solid supported synthesis of oligosaccharides .

5 comment on the aromaticity , outline a synthesis and give any two reactions of [18] – annulenes .

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION- April 2016

ORGANIC SYNTHESIS-C- 403

Time : 1: 30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 what is asymmetric aldol condensation ? llustrate with an example .

2 outline one example to show a diastero selective oxidation .

3 What are ionic liquids ?

4 Explain the phenomenon of cativation .

5 Draw the contributing canonical structure of azulene and give evidence in support of its dipolar structure .

II Answer any four oif the following questions (4*5= 20)

1 Describe the mechanism of stereoselective reduction of olefin in presence of ?(S,S) – CHIRAPHOS .

2 Explain the mechanism of stereo selective cycilzation of polyenes .

3 What is ee ? Explain any two methods of determining ee .

4 Explain the addition of allyi boranes to carbonyl group .

5 Explain microwave assisted Diels Alder reaction and N- alkylation reaction.

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION- May 2016

ORGANIC SYNTHESIS-C- 403

Time : 1: 30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 What is Darzens reaction ?

2 Write any two uses of nucleophilic nitrogen and electrophilic carban

3 write short note on LAH .

4 Write any two synthetic application of stork Enamine reaction .

5 what is atom efficiency ?

II Answer any four of the following questions (4*5 = 20)

1 Explain the use of (+) and (-) DET in asymmetric epoxidation .

2 Give the products for the degradation of peptides by using solid phase – edman degradatrion techniques .

3 Write a note on the sonochemical esterification .

4 Define the terms asymmetric synthesis . state and illustrate crams rule of asymmetric induction .

5 Discuss the different steps involved in the solid supported synthesis of oligosaccharides .

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION- April 2017

ORGANIC SYNTHESIS-C- 403

Time : 1: 30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 What is ee ? if one of the enantiomer is formed in 84 percent yield in an asymmetric synthesis , what is percentage of ee ?

2 llustrate the crams rule in the reaction of alpha phenyl propionaldehyde with a Grignard reagent .

3 What is ionic liquids ?

4 Explain the phenomenon of cativation .

5 Draw the contributing canonical structure of azulene and give evidence in support of its dipolar structure .

II Answer any four oif the following questions (4*5= 20)

1 Describe the mechanism of stereoselective reduction of olefin in presence of ?(S,S) – CHIRAPHOS .

2 Give the products for the degradation of peptides by using solid phase – edman degradatrion techniques .

3 llustrate stereospecific and stereoselective reaction .

4 Define the terms asymmetric synthesis . state and illustrate crams rule of asymmetric induction .

5 Explain the use of (+) and (-) DET in asymmetric epoxidation

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION- May 2017

ORGANIC SYNTHESIS-C- 403

Time : 1: 30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 What is ee ? if one of the enantiomer is formed in 84 percent yield in an asymmetric synthesis , what is percentage of ee ?

2 write short note on LAH .

3 Write any two synthetic application of stork Enamine reaction .

4 what is atom efficiency ?

5 Bring out two difference between fumigants and contract insecticides .

II Answer question one compulsory and any three of the remaining .(4* 5=20)

1comment on the aromaticity , outline a synthesis and give any two reactions of [18]- annulenes .

2 Give an account of structural features and insecticidal properties of pyrethrins

3 Explain the mechanism of diasteroselective oxidation with an example .

4 Discuss the properties of polymer supported reagents . what are their main advantages in organic synthesis ?

5 Discuss different steps involved in the solid supported synthesis of oligosaccharides .

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION, APRIL 2018

Time : 1: 30 hrs ORGANIC SYNTHESIS C- 403 Max. marks : 30 marks

I Answer the following questions (5* 2= 10)

1 Citing two example . explain the use of acetylides in carbon- carbon bond forming reactions .

2 Write a note on electrophilic nitration reaction at aliphatic carbon

3 What is ee ? if one of the enantiomer is formed in 84 percent yield in an asymmetric synthesis , what is percentage of ee ?

4 llustrate the crams rule in the reaction of alpha phenyl propionaldehyde with a Grignard reagent .

5 What is ionic liquids ?

II Answer any four of the following questions (4*5= 20)

1 comment on the aromaticity , outline a synthesis and give any two reactions of [18]- annulenes .

2 Give an account of structural features and insecticidal properties of pyrethrins
3 Explain the mechanism of diasteroselective oxidation with an example .

4 Discuss the properties of polymer supported reagents . what are their main advantages in organic synthesis ?

5 Discuss different steps involved in the solid supported synthesis of oligosaccharides .

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION, MAY 2018

Time : 1: 30 hrs ORGANIC SYNTHESIS C- 403 Max. marks : 30 marks

I Answer the following questions (5* 2= 10)

1 What is atom efficiency in use of microwaves in organic synthesis.

2 What is Dieckmann cyclisation reaction?

3 How carbene are generated ?

4 What is DDT ? How do you prepare it ?

II Answer question one compulsory and any three of the remaining .(4* 5=20)

1 IIustrate stereospecific and stereoselective reaction .

2 Define the terms asymmetric synthesis . state and illustrate crams rule of asymmetric induction.

3 How would you prepare crown ethers ? Explain its synthesis applications.

4 How could you prepare anthracene and phenanthrene ? Explain their general reaction.

5 Explain why Azulene has a permanent dipole moment .

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION APRIL - 2019

C- 403 ORGANIC SYNTHESIS

Max . marks : 30 marks **T ime : 1: 30 hrs**

I Answer any four of the following questions (5*2= 10)

1 What is Darzens reaction ?

2 Write any two uses of nucleophilic nitrogen and electrophilic carban

3 write short note on LAH .

4 Write any two synthetic application of stork Enamine reaction .

5 Write a short note on i) DDQ ii) OSO_4

II Answer question one compulsory and any three of the remaining .

1 Describe the mechanism of stereoselective reduction of olefin in presence of ?(S,S) – CHIRAPHOS .

2 Define the terms asymmetric synthesis . state and illustrate crams rule of asymmetric induction .

3 Explain the use of (+) and (-) DET in asymmetric epoxidation .

4 Give the products for the degradation of peptides by using solid phase – edman degradatrion techniques .

5 Write a note on the sonochemical esterification .

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION,MAY 2019

Time : 1: 30 hrs ORGANIC SYNTHESIS C- 403 Max. marks : 30 marks

I Answer the following questions (5* 2= 10)

1 What is DIOP ? llustrate their use in organic synthesis with an example .

2 Azulene has a permanent dipole moment ? why ?

3 What are double diastereoselection ? Explain with on example .

4 Draw a structure of [12] – crown 4 ether . why it forms stable complex with lithium but not with potassium?

5 what is atom efficiency

II Answer question one compulsory and any three of the remaining .(4* 5=20)

1 IIustrate stereospecific and stereoselective reaction .

2 Define the terms asymmetric synthesis . state and illustrate crams rule of asymmetric induction.

3 Write a note on the sonochemical esterification .

4 what is Dieckmann cylization reaction write the mechanism.

5 Discuss the different steps involved in the solid supported synthesis of oligosaccharides .

BANGALORE CITY COLLEGE

INTERNAL EXAM IMSC II SEM

C-202 organic chemistry ,April 2014

Time :1:30 hrs **Max.marks:30M**

I ANSWER THE FOLLOWING QUESTIONS (5*2=10)

1 what is ipso attack ?Give an example.

2 what is mannich reaction? Formulate its mechanism.

3 formulate the mechanism of E2C reaction by taking appropriate example.

4 what is wolf rearrangement ?Give its mechanism.

5 outline the synthesis of biotin.

II **ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS**

1 Explain the ortho- para ratio in aromatic electrophilic substitution reaction using appropriate example. 5M

2 a)what is ene synthesis ? Discuss the mechanism with the help of suitable example. 5M

3 Discuss the effect of leaving group and substrate structure on aromatic SN_1 reactions . 5M

4 Explain why cis z – butane given (dl) mixture of 2, 3 – di bromo butane on addition of bromine . 5M

5 Discuss the mechanism of Fritsch – butttenberg – wiechell rearrangement using suitable example. 5M

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION IMSc II SEM

C- 202 ORGANIC CHEMISTRY , MAY 2014

Time : 1:30 hrs **Max.marks : 30 marks**

I Answer the following questions (5*2 =10)

1 what are vilsmeir reaction ? Given an mechanism .

2 Give an example of a ipso reaction.

3 what is sommelet – Hauser reaction ? Explain with an example .

4 what is addition reaction ? Give one example.

5 what is Gatterman – Koch reaction ? explain with an example .

II Answer any four of the following question

1 Discuss the mechanism of the following reaction(3+2)

a) Vilsmeier – Haack reaction
b) Schiemann reaction

2 Write briefly on the following (3+2)

a)Witting reaction

b) Formation of xanthenes

3 Give an account of the following reactions(3+2)

a) Fritch – Buttenberg wiechell rearrangement
b) Arndt-Eistert reaction. 5M

4 Describe the Edmann – degradation of N – terminal residue analysis of peptides

5 Write the steps involved in the synthesis of oligonucleotide by the phosphoramide method . 5M

BANGALORE CITY COLLEGE

INTERNAL EXAM I MSC IISEM

C – 202 ORGANIC CHEMISTY APRIL 2015

Time : 1:30 **Max.marks:30**

I ANSWER THE FOLLOWING QUESTIONS (5* 2=10)

1 What is stevens rearrangement ?

2 what are molecular receptors ?Give its significance .

3 Explain trans esterification with an example .

4 Explain the addition reaction of amines to isocyanates.

5 Discuss the mechanism of the reaction often reffered to a diazo coupling.

II ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS

1 Outline the mechanism of von –Richter reaction. 5M

2 Explain the stereo selectivity of product formation in witting reaction. 5M

3 a)Explain the stereo chemistry of E_2 reaction with an example .

b)Give the mechanism of stobbe reaction. (3+2=5)

4 Explain why nitrobenzene is less reactive to words electrophilic substitution reaction. 5M

5 a) How do you synthesize nitriles from aldhydes give the mechanism with an example.

b)Outline the synthesis of biotin. (3+2=5)

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I MSc II SEM

C – 202 ORGANIC CHEMISTRY , MAY 2015

I Answer the following questions (5*2=10)

1 N- methyl benzamide does not undergoes Hofmann rearrangement .Account for that.

2 what is Regio selective reaction?

3 How are pyridoxine and pyridoxy amine interconverted?

4 what is Neber rearrangement ?Explain with an example .

5 what is witting reaction ?

II Answer any four of the following questions (4*5=20)

1 Explain why nitrobenzene is less reactive toword electrophilic substitution.

2 How do you synthesize nitriles from aldehydes give the mechanism with an example .

3 Explain the stero chemistry of E_2 reaction with an example .

4 Trans-2-Acetoxy cyclohexly tosylate on acetolysis give the same trans produt . explain

5 Explain the steroselectivity of product formation in witting reaction.

BANGALORE CITY COLLEGE

INTERNAL EXAM I MSC II SEM

C – 202 ORGANIC CHEMISTRY , APRIL 2016

I ANSWER THE FOLLOWING QUESTIONS (5*2= 10)

1 Anisole is less reactive than phenol even through the alkyl part of the alkoxy group is electron releasing – justify.

2 Explain the mechanism of curtius rearrangement .

3 Explain addition reaction of amine to isocyanates

4 write the structure and give the importance of vitamin A_1

5 what is Hoesch reaction?Explain with an example .

II ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS

1 Give an account of effect of substrate structure and leaving group on the SNAr mechanism. 5M

2 what are Regio and stereoselective reactions ?Explain with suitable examples. 5M

3 Give an account of addition of Grignard reagent and organolithium to alpha and beta un saturated ketones . 5M

4 What is wager – meerwein rearrangement ? Give the mechanism with an example. 5M

5 With a suitable example give the mechanism of Tiffeneau – Demjanov reaction. 5M

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I MSc II SEM

C- 202 ORGANIC CHEMISTRY , MAY 2016

Time :1:30 hrs **Max.marks : 30 marks**

I Answer the following questions (5*2=10)

1 Explain trans esterification with an example .

2 what is witting reaction ?

3 what is ispso attack ?

4 Explain the mechanism of curtius rearrangement .

5 explain the addition reaction of amine to isocyanates .

II Answer any four of the following questions (4*5=20)

1 outline the mechanism of von – Richter reaction.

2 Give the mechanism of stobbe reaction .

3 What are molecular receptors ? Give the structure and function of the following synthetic molecular receptor

a) Calxarenes b)Molecular tweezers

4 Discuss the mechanisms of SNAr and reaction with suitable example

5 Discuss the mechanism of schiemann reaction .

BANGLORE CITY COLLEGE

INTERNAL EXAMINATION I MSC IISEM

C-202 ORGANIC CHEMISTRY , APRIL 2017

Time :1:30hrs Max. marks :30M

I ANSWER THE FOLLOWING QUESTIONS (5*2 = 10)

1 what is Hoesch reaction ?Explain with an example .

2 with an example give the mechanism of bucherer reaction.

3 what is ene reaction ? Explain with a mechanism.

4 what is witting reaction ? propose a mechanism with an example .

5 what is lossen reaarangement ? Explain with a example .

II ANSWER ANY FOUER OF THE FOLLOWING QUESTIONS

1 what are E_2 C and E_2 H mechanism ? Explain with suitable example . 5M

2 with a suitable example give the mechanism of Tiffeneau – Demjanov reaction. 5M

3 what is arenium ion mechanism ?explain with suitable example

4 sketch a synthesis of alpha tocophenol. 5M

5 what is chugaev reaction ? Explain its mechanism using appropriate example . 5M

BANGALORE CITY COLLEGE

INTERNAL EXAM I MSc I SEM

C- 202 ORGANIC CHEMISTY , MAY 2017

Time : 1:30 hrs **Max. marks : 30 marks**

I ANSWER THE FOLLOWING QUESTIONS (5*2=10)

1 what are Neber rearrangement ? Explain with an example .

2 How are pyridoxine and pyridoxyl amine interconverted?

3 Draw the structure of areceptor with multiple hydrogen bonding sites and suggest a suitable host for it .

4 with a suitable example give the mechanism of E2H reaction .

5 What is ene synthesis ? Explain with an example .

II ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS (4*5= 20)

1 Write briefly on the following a) witting reaction

b)formation of xanthenes

2 What are regio and stereoselective reactions ? Explain with suitable example.

3 Give an account of addition of Grignard reagent and organo lithium to alpha beta unsaturated ketones .

4 what are wagner – meerrwein rearrangement ? Give the mechanism with an example

5 with a suitable example give the mechanism of Tiffeneau-Demjanov reaction.

BANGALORE CITY COLLEGE

INTERNAL EXAM , MSc II SEM

C – 202 ORGANIC CHEMISTRY , APRIL 2018

Time :1:30 hrs **Max.marks :30Marks**

I Answer the following questions

1 Write the mechanism for smiles rearrangement .

2 With an example give the mechanism of Bucherer reaction.

3 what is ene reactions ? Explain with a mechanism.

4 what is witting reaction ?propose a mechanim with an example .

5 what is Hoesch reaction ? E xplain with a mechanism .

II Answer any four of the following questions

1 what is arenium ion mechanism ? Explain with an example . 5M

2 a) what is lossen rearrangement ? Explain with mechanism.(3 +2)M

b)With a suitable example propose a mechanism for the SRN_1 reaction.

3 what are E2C and E2H mechanism ? Explain with suitable examples .5M

4 what is wagner – meerwein rearrangement ? Give the mechanism with an example . 5M

5 with a suitable example give the mechanism of Tiffeneau – Demjanov reaction . 5M

BANGALORE CITY COLLEGE

INTERNAL EXAM I MSc IISEM

C- 202 ORGANIC CHEMISTRY MAY 2018

Time :1:30 hrs **Max. marks : 30 marks**

Answer the following questions (5*2=10)

1 what is ipso attack ?

2 what is Hoesch reaction? E xplain with an example .

3 With an example give the mechanism of Bucherer reaction .

4 what is ene reaction ? Explain with mechanism.

5 what is witting reaction ? propose a mechanism with an example .

Answer any four of the following questions (4*5= 20)

1 Give an account of effect of substrate structure and leaving group ont the SNAr mechanism .

2 What are region and stereoselective reaction ? Explain with suitable examples.

3 What are wagner – Meerwein rearrangement ? Give the mechanism with an example.

4 With a suitable example give the mechanism of Tiffeneau – Demjanov reaction

5 what is Chugaev reaction ? Explain its mechanism using appropriate example .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I MSC II SEM

C – 202 ORGANIC CHE MISTRY , APRIL 2019

Time :1:30 **Max.marks :30 Marks**

Answer the following questions (5*2= 10)

1 what is diazo coupling reaction ?

2 what is Goldberg reaction?

3 write any two application of the lithium aluminium hydroxide .

4 write any two application of Grignard reagent .

5 Give the mechanism of Baeyer – villager oxidation with an example .

Answer any four of the following questions

1 Explain the ortho – para ratio in aromatic electrophilic substitution reaction using appropriate examples. 5M

2 what is ene synthesis ? Discuss the effect of leaving group and substrate structure an aromatic SN_1 reaction .5M

3 write a short note on sommelet –Hauser rearrangement reaction. 5M

4 Explain the use of isotrophic labelling studies establishing arenium ion mechanism. 5M

5 Discuss the mechanism of the following reaction (a) vilsmayler reaction (b) Neber reaarangement ? 5M

BANGALORE CITY COLLEGE

INTERNAL EXAM IMSc II SEM

C- 202 ORGANIC CHEMISTRY .MAY 2019

Time : 1:30 hrs **Max. marks : 30Marks**

Answer the following question .(5*2=10)

1 What is lossen rearrangement ? Explain with an example .

2 what is arenium ion mechanism ?

3 Draw the structure of receptor with mulptile hydrogen bonding site .

4 Give the mechanism of Baeyer – villager oxidation with an example .

5 What is mannich reaction? Formulate its mechanism.

Answer any four of the following questions

1 a) Outline the mechanism of von-Richter reaction .(3+2)

b) Explain the stereoselectivity of product formation in witting reaction .

2 a)what is stevens rearrangement ?(3+2)

b) write the mechanism for smiles rearrangement .

3 Mention some important application and give the mechanism of ene - reaction. 5M

4 Explain why nitrobenzene is less reactive toword electrophilic substitution.5M

5 Trnas -2-Acetoxy cyclohexyl tosylate on acetolysis gives the same trans product .Explain. 5M

BANGALORE CITY COLLEGE

INTERNAL EXAM I BSc ISEM

CHEMISTRY –I, OCT - 2014

Time : 1:30 **Max. marks : 30Marks**

I Answer the following questions (2*5=10)

1 what is homolysis ? Give one example .

2 Define parachor and sugden equation.

3 Halogen are strong oxidizing agents . Explain.

4 calculate the most probable velocity of nitrogen at STP.

5 Define collision number ?

II Answer any four of the following questions .

1 Explain the determination of P_c and T_c of a gas experimentaly. 5M

2 a) what is meant by bioluminescence ? (2 +3)M

b) Explain the mechanism of photochemical decomposition of HI.

3 How is osmotic pressure determined from the Berkely –Hartely method 5M

4 Briefly short note on carbocation ,carbonanion , freeradicals 5M

5 a) What is optical activity ? (2+3)M

b) Difference between thermal and photochemical process .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC I SEM

CHEMISTRY –I NOV 2014

Time : 1:30 **Max .marks : 30 marks**

I Answer the following questions (2* 5 = 10)

1 Define saytzeffs rules ?

2 structural formula of 2,3 – dibromo 2 –butene and 2- hydroxyl propanoic acid

3 How are alkynes prepared from vicinal dihalides ?

4 write the geometrical isomers of 2- butene ?

5 How ethyne converted to benzene ?

II Answer the following questions (4*5 = 20)

1 What is alicyclic compound ? write the structure of cyclo pentane .

2 Write the limitation of Bayers strain theory .

3 Give an example of conjugated diene , how does it react with hydrogen choride

4 Explain the sache –mohrs theory of strain less rings ?

5 Explain the conformation of butane .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION

CHEMISTRY -I OCT 2016

Time : 1:30 hrs **Max. marks – 30 marks**

Answer the following questions

1 Define the terms Accuracy and precision .

2 write the mathematical expresstion for viscosity of liquid and explain the factors affecting viscosity of liquid.

3 How ethyne converted to benzene ?

4 The surface tension of benzene is 29.2 dynes per cm . its density is 0.88 gcm^{-3} .calculate parachor value .

5 Define lever rule .

Answer any four of the following questions

1 write the reduced equation of state for real gas .what do the symbols used stand for . 5M

2 a) what is wurtz reaction with example .(2+ 3) M

b) Explain the mechanism of anti –markovnikov's reaction with an example .

3 Describe how the molecular weight of a non- volatile solute is determined by boiling point method . 5M

4 write a short note on corey – house synthesis , witting reaction, 5M

5 a) what is Diels – Alder reaction ?

b) Difference between conformation and configuration ?(2+3) M

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION

CHEMISTRY -I OCT 2017

Time : 1:30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 what are colligative properties ?

2 How is electronegativity of an element calculated by pauling's method ?

3 Alkali metals are powerful reducing agents . explain .

4 calculate the most probable velocity of CO_2 at 300k

5 Define the term atomic radius .

II Answer any four of the following questions

1 Write a note on Desilverization of lead by parke's process . 5M

2 a) what is an azotropic mixture ?(2+3)M

b) Explain the mechanism of anti –markovnikov's addition reaction with an example .

3 How is osmotic pressure determined from the Berkely – Hartely method ?5M

4 write a short note on phenol- water system and Nicotine – water system .5M

5 a) Define saytzeffs rule?(2 + 3) M

b) Difference between conformation and configuration ?

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC II SEM

CHEMISTRY – II APRIL– 2014

Time : 1: 30 hrs **Max . marks : 30 marks**

I Answer the following questions (5*2= 10)

1 What is aromaticity ? Give one example.

2What is Birch reduction ?

3 What is Diels alder reaction of anthracene with 1.2 – dichloroethene .

4 Write any two preparation of stilbene .

5 Write any two factors affecting the nucleophilic substitution reactions.

II Answer any four of the following questions (4*5=20)

1 Write the general mechanism of aromatic electrophilic substitution reaction.

2 Aromatic nucleophilic substitution via benzyne intermediate mechanism with evidence for the formation of benzyne by trapping with anthracene .

3 Write any two preparation of Bi – phenyl

4 What is the difference between the SN_1 and SN_2 reaction .

5 Explain the mechanism of nitration of benzene .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC IISEM

CHEMISTRY – II MAY 2014

Time : 1: 30 hrs **Max .marks : 30 marks**

I Answer the following question . (5*2= 10)

1 what is antiaromaticity ? Give one example .

2 What is lattice energy ?

3 How toluene is oxidized to benzaldehyde ?

4 How many pi electrons are present in naphthalene .

5 How lathanides are separated .

II Answer any four of the following questions .(4*5= 20)

1 Transition metals possess high electrode potential . But they are not good reducing agents . Explain

2 Discuss the variable oxidation states of 3d series elements . Why oxidation state increases up to manganese and then decreases.

3 Discuss the modern concept for the structure of benzene .

4 Explain the mechanism of nitration of nitro benzene

5 Explain the hyper conjugative effect in toluene .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC II SEM

CHEMISTRY – II APRIL 2015

I Answer the following questions (2*5 = 10)

1 Give an example for ortho / para orienting group .

2 What is the C- C bond length in benzene?

3 what is aromaticity ?

4 Why transistion elements form complexes ? Give reason .

5 What are actinides ? Why they are called so?

II Answer any four of the following questions (4*5= 20)

1 What are silicates ? Mention different types of silicates with an example for each .

2 Discuss the structure and applications of Zeolites .

3 Set up Born- Haber cycle for the formation of KCl .

4 Write the silent features of valence bond theory .

5 Write the molecular orbital diagram of O_2 molecule . calculate the bond order and magnetic property .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC II SEM

CHEMISTRY –II MAY 2015

Time : 1: 30 hrs **Max . marks : 30 marks**

I Answer the following questions (5* 2= 10)

1 Define aromaticity ?Give one example

2 How many pi electrons are present in naphthalene ?

3 Why transition elements form complexes ? Give reason.

4 What is actinides ? Why they are called so ?

5 Write a note on redox potential of transition elements .

II Answer any four of the following questions (4*5= 20)

1 Discuss the modern concept for the structure of benzene .

2 Discuss Huckels (4n +2) rule of aromaticity with example .

3 Discribe the variable oxidation states of 3d series elements . Why oxidation state increases up to manganese and then decreases ?

4 Discuss the principle involved in ion – exchange method for the separation of lanthanides .

5 What is lanthanide contraction ? What are its consequences .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC I SEM

CHEMISTRY – II APRIL 2016

Tiime : 1:30 **Max.marks : 30 marks**

I Answer the following questions (5*2= 10)

1 Write the equation usred to calculate the radius of bohr orbit .

2 Write de – Broglie equation .

3 Write the formula used to calculate the total number of electrons in a given main energy level.

4 State paulis exclusion principle .

5 In which region of spectrum , Balmer series is observed ?

II Answer any four of the following questions (4*5= 20)

1 Drive the expression for radius of Bohrs orbit .

2 Write the postulates of quantum mechanics .

3 Derive schrodinger equation for particle in one dimensional box .

4 What are quantum numbers ? Explain their significance .

5 Explain hydrogen spectrum based on Bohrs model.

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC IISEM

CHEMISTRY –II MAY 2016

Time : 1: 30 hrs **Max . marks : 30 marks**

I Answer the following questions (5* 2= 10)

1 What are silicates ? Give an example for pyrosilicates .

2 What are cyclic silicates ? Give an example .

3 Write the application of zeolites .

4 What is antiaromaticity ? Give one example

5 How toluene is oxidized to benzaldehyde ?

II Answer any four of the following questions (4* 5= 20)

1 Explain the mechanism of nitration of benzene .

2 Discuss the modern concept for the structure of benzene .

3 Explain the hyper conjugative effect in toluene .

4 Discuss the principle involved in ion exchange method for the separation of lanthanides .

5 Discuss atomic and ionic radii of 3d series element .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC IISEM

CHEMISTRY – II APRIL 2017

Time : 1: 30 hrs **Max . marks : 30 marks**

I Answer the following questions (5*2= 10)

1 Write de Broglie equation .

2 What is lattice energy ?

3 Give one example for intrinsic semiconductor.

4 Why water is liquid at room temp.

5 what is antiaromaticity ? Give one example .

II Answer any four of the following questions (4*5= 20)

1 Write the salient features of valance bond theory .

2 What are the postulates of VSEPR theory .

3 Write a molecular orbital diagram of N_2 molecule . calculate bond order and magnetic properties .

4 What is metallic bond Discuss bond theory of metallic bond .

5 What is semiconductors? Discuss the types of semiconductors .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION IBSC II SEM

CHEMISTRY – II MAY 2017

Time : 1:30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2=10)

1 Actinides have greater tendency to form complexes than lanthanides . Explain .

2 What is lanthanoid contraction ? write any one consequence of lanthaniod contraction .

3 Why transition metal compound are coloured ? Explain.

4 what is non- aromaticity ? Give one example .

5 Why f – block elements are called inner transition elements .

II Answer any four of the following questions (4* 5= 20)

1 Explain the isolation of helium from liquid air .

2 What are silicates ? Mention different types of silicates with an example for each .

3 Discuss the structure and application of zeolites .

4 Explain the shape of ammonia molecule based on VSEPR theory .

5 What is hybridization ? Discuss Sp^3d hybridization by taking an example .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC IISEM

CHEMISTRY – II MAY 2018

Time : 1:30 hrs **Max. marks : 30 marks**

I Answer the following questions (5* 2= 10)

1 What is vander waals force ?

2 Write the characteristics of ionic compounds .

3 Write Born- lande equation and explain the terms .

4 What are the factors which influence the formation of ionic bond ?

5 Write any two difference between sigma and pi bonds .

II Answer any four of the following questions (4*5= 20)

1 Write the molecular orbital diagram of O_2 molecule . calculate bond order and magnetic properties .

2 What are semiconductors ? Discuss the types of semiconductors .

3 Derive the schrodinger equation for partical in one dimensional box .

4 Write the postulates of quantum mechanics .

5 Derive the expression for radius of Bohrs orbit.

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION IBSC ISEM

CHEMISTRY – I NOV 2018

Time : 1:30 hrs **Max. marks : 30 marks**

I Answer the following questions (5*2= 10)

1 Define lever rule ?

2 Write a note on Tie lines .

3 Mention any two conditions for the formation of an ideal solution .

4 What is an Azeotropic mixture ?

5 Write a note on a Vant hoff factors.

II Answer any four of the following question (4 *5 = 20)

1 Write a note on desilversation of lead by parkes process .

2 Define surface tension . How does the surface tension of a liquid vary with temperature

3 How is osmotic pressure determined from the Berkely – Hartely method ?

4 Describe how the molecular weight of a non – volatile solute is determined by boiling point method .

5 Write any four applications of steam distillation .

BANGALORE CITY COLLEGE

INTERNAL EXAMINATION I BSC I SEM

CHEMISTRY – II APRIL 2019

Time : 1: 30 hrs **Max . marks : 30 marks**

I Answer the following questions (5*2= 10)

1 What is the hydridization of beryllium in $Becl_2$.

2 What is lattice energy ?

3 How Radon is prepared ? mention its uses .

4 Discuss the structure of XeF_4

5 Why nobel gases are inert ?

II Answer any four of the following questions (4* 5= 20)

1 Explain the isolation of helium from liquid air .

2 Discuss the principle involved in ion exchange method for the separation of lathanides .

3 Explain the mechanism of nitation of phenol.

4 Explain the hyper conjugative effect in toluene .

5 Discuss the moden concept for the structure of benzene .

BANGALORE CITY COLLEGE

Internal **exam** , MSc I sem

C – 101 inoraganic chemistry , oct – 2014

Time :1:30 **Max.marks:30M**

I Answer the following questions .(5*2=10)

1 How is orthocarboranes synthesiaed ? what are its properties ?

2 what are wade – mingo and laucher rules ?

3 what is Auger effect ? Explain .

4 what are zintil isoelectronic realationship in solids ? Explain giving example .

5 Draw a plot of variation of viscosity of sulphur with temperature and explain this behaviour .

II Answer any of the following questions (4*5=20)

1 a) calculate the binding energy per nucleon in Zn nucleide .whose mass is 63.9493amu.(Given : mass of neutron =1.0090 amu , mass of proton =1.0081amu and 1amu =931.45Mev).

b) Give the preparation of a tetraborane and discuss its structure .

2 Draw the MO diagram of CO and explain its salient features . comment on its bonding ability to d- block metals .

3 How are oxyacids of phosphorous obtained ?write structure of ortho –pyro – meta and hypo – phosphoric acids and comment on their properties .

4 Discuss the tendency of pairing of nucleons in understanding the stability of nucleus .

BANGALORE CITY COLLEGE

Internal exam , MSc I Sem

C- 101 inorganic chemistry , oct 2015

Time :1: 30 hrs **Max.marks : 30 marks**

I ANSWER THE FOLLOWING QUESTIONS (2*5=10)

1 why zeolites are called as shape selective catalysis ?

2 write the semiemperial bonding energy equation and label the terms involved in the equations .

3 what are synergic bond ? explain .

4 write the pervoskite structure for an ionic solid and mention its features .

5 write any two application of S_4N_4.

II ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS

1 Mention the type of force of interration with which the elementary particals interact . Give the chacteracteristic features of strong forces of interactions . 5M

2 a)Borazine is more reactive than benzene.substantiate this with examples and explain

b)write an explanatory note on Quark's. (3+2)M

3 a)what is parity of a nucleide ?Give its significance. (3+2)M

b)How do muscovite and margarite minerals differ from pyrophyllite?

4 Discuss the sailent features of "liquid drop model"of the nucleus. 5M

5 with illustrative examples , explain " leveling effect " and " differentiating solvents " 5M

BANGLORE CITY COLLEGE

Intermal exam IMSc Isem

C – 101 Inorganic chemistry oct 2016

Time :1:30 **Max mark : 30M**

I Answer the following questions (5*2=10)

1 what are the limitation of the HSAB concept ?

2 Explain multicentred bonding by talking B-H-B bond as an example .

3 Write the self- ionization reaction of BrF_3. Give an example of acid – base reaction in BrF_3.

4 Derive the styx code of B_2H_6 and B_4H_{10}.

5 What are slaters rules ?

II Answer of the following questions .

1a)Explain pearsons concept of HSAB principle .Give any four application of HSAB concept.(3 +2)M

b) Depict the MO diagram of XeF_2 and explain.

2 a)what are amphiboles ? write their structure .(3+2)M

b)write a brief note on condensed phosphates.

3 What are carboranes ? Give an account of their classification.5M

4 What are hard – soft acids and bases ?and its applications .5M

BANGLORE CITY COLLEGE

INTERNAL EXAM I MSC IISEM

Internal exam I MSc I sem

C – 101 Inorganic chemistry oct 2017

I Answer the following questions (5*2=10)

1 what are heteropoly anions ?

2 what is bents rules ?

3 calculate the effective nuclear charge felt by 15 electrons of helium atom .

4 Xenon forms large number of compounds amomg noble gases . why ?

5 what arev super acids ? Give example .

II Answer any four of the following questions

1 construct the molecular orbital energy level diagram for N_2 and explain its sailent features .5M

2 with suitable example explain the isomorphorous replacement in silicates ? 5M

3 with illustrative example , explain the concepts of levelling effect of solvents.5M

4 write a short note an a) fajans rules b)HSAB concept 5M

5 Discuss the structure and bonding involved in the trimeric phosphonitrilic compounds .5M

BANGALORE CITY COLLEGE

Internal exam IMSc I sem

C- 101 inorganic chemistry oct 2018

Time : 1:30 hrs **Max.mark :30M**

I ANSWER THE FOLLOWING QUESTIONS (5*2=10)

1 what is meant by ionization energy ? Explain its periodic trend .

2 Draw the structure pf pentaborane -9 and find out its styx numbers .

3 Explain the term polymorphism with respect to sulphur .

4 what are molecular sieves ? Give their uses.

5 write kapusteroskii's equations . Give its significance .

II ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS (4*5 =10)

1 llustrate with example the types of hydrogen bonding . comment on the role of spectroscopic techniques in their detection.

2 what is meant by partial ionic character of covalent bonds ? How is this related to electonegativity?

3 Derive Born-Lande equation for the lattice energy of Nacl solid .

4 Discuss the concept of acid – base in non – aqueous media by taking a suitable example.

5 Distinguish between isopoly and heteropoly acids ? discuss their structures with example .

BANGALORE CITY COLLEGE

Internal exam

C – 101 inorganic chemistry , oct - 2019

Time : 1:30 hrs **Max.marks :30Marks**

I Answer the following questions (5*2=10)

1 what are super acids ?

2 with an example each distinguish isopoly acids from heteropoly acids .

3 explain the terms mass defect and binding energy ?

4 what are polymorphism ?explain with an example .

5 xenon forms large number of compounds among noble gases . why ?

II Answer any four of the following questions(4*5=20)

1 Discuss the sailent features of liquid drop model of the nucleous .

2 with illustrative example , exaplain leveling effect and differentiating solvents .

3 Discuss the important application of isopoly anion and heteropoly anions .

4 With illustrative example , discuss the classification of boranes and carboranes.

5 Outline a method for the preparation of benzene . why is it known as inorganic benzene ?

Bangalore City College

B.Sc. I Semester 2014

Internal Assessment-I

Max. Marks-30

I.Answer any four of the following- **4x5=20**

1.Explain Down's Syndrome.

2.Explain the structure and function of Mitochondria.

3.Explain Mendel's Laws of inheritance.

4.What is sex determination? Explain ZZ-ZO System.

5. What is a chromosome? Add a note on its types based on centromeric position.

II.Answer any one of the following- **10x1=10**

6. Explain in detail the stages involved in Meiosis.

7. Explainin detail the mechanism of programmed cell death.

Bangalore City College

B.Sc. I Semester 2014

Internal Assessment-II

Max. Marks-30

I.Write short notes on the following- **5x2=10**

1. Microtubules

2. Ribosomes

3. mRNA

4. Kappa Particles

5. Autopolyploid

II.Answer any two of the following- **10x2=20**

6. What is mutation? Describe chemical mutagens and their mode of actions.

7. Explain-

a. Turner' Syndrome

b. Cri-Du-Chat Syndrome

8.Illustrate the molecular mechanism of crossing over.

Bangalore City College

B.Sc. I Semester 2015

Internal Assessment-I

Max. Marks-30

I.Write short notes on the following- **5x2=10**

1. Peroxisomes

2.Allosome

3.Telomere

4. Kappa Particles

5. Nucleolus

II.Answer any two of the following- **10x2=20**

6. What are supplementary genes? Explain it's mechanism and significance.

7. What is crossing over? Explain it's mechanism and significance.

8.What is cytoplasmic inheritance? Describe with reference to Mirabilsjalapa.

Bangalore City College

B.Sc. I Semester 2015

Internal Assessment-II

Max. Marks-40

I.Answer any four of the following- **4x5=20**

1.Explain Klinefelter's Syndrome.

2.Explain the structure of Lampbrush Chromosome.

3.Explain Epistasis with suitable example.

4.What is Amoeboid movement?

5. State Law of Segregation with a suitable example.

II.Answer any two of the following- **10x2=20**

6. Give a detailed account of prophase I of Meiosis. Add a note on it's significance

7. In man allosomal disorders can lead to sexual abnormalities. Discuss

8.Describe the ultrastructure of chromosome and add a note on evolution of modern wheat.

Bangalore City College

B.Sc. I Semester 2016

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. What is collenchyma?

2. Microtubules

3. Ribosome

4. Vacuole

5. Cell theory

Section-B

II. Answer any Twoof the following- **2x5=10**

6. Describe the ultrastructure and functions of chloroplast.

7. With the help of neat labelled diagram define Nucleus.

8.Point out the main difference between Prokaryotic and Eukaryotic cells.

Section-C

III.Answer any one of the following - **1x10=10**

9.Explain tight junction and Gap Junction.

10. Write the functions of Endoplasmic Reticulum and Mitochondria.

Bangalore City College

B.Sc. I Semester 2016

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1.Genotype and Phenotype

2. Nucleotide and Nucleoside

3. Karyotype and Idiogram

4.Telomere

5. Dihybrid Cross

Section-B

II. Answer any four of the following- **4x5=20**

6. Explain the Principle of Dominance.

7.Down Syndrome

8. Explain the structure of DNA.

9.Lampbrush Chromosomes

10. Incomplete Dominance

Section-C

III. Answer any one of the following - **1x10=10**

11. Give an account of Nucleosome model of DNA.

12. What are the Complementary genes? In sweet peas, factor C or P alone produces white flowers and when together produces purple flowers. Give the phenotype ratios in the progenies of the following crosses-

a. Cc Pp X cc Pp

b. CC pp X cc Pp

c. Cc Pp X Cc Pp

d. Cc Pp X Cc pp

Bangalore City College

B.Sc. I Semester 2017

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1.Sclerenchyma

2. Microtubules

3. Lysosomes

4.Merismatic Tissue

5. Desmosomes

Section-B

II. Answer any Two of the following- **2x5=10**

6. Fluid Mosaic Model.

7. Draw a neat labelled diagram of Neuron.

8.Describe Nucleus.

Section-C

III. Answer any one of the following - **1x10=10**

9.Explain the structural organization of Eukaryotic cell.

10. Describe the structure and functions of Golgi complex.

Bangalore City College

B.Sc. I Semester 2017

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. Euchromatin

2. Multiple Alleles

3. Genes

4.Structure of ATP (Only Diagram)

5. Monohybrid Cross

Section-B

I.Answerany four of the following- **4x5=20**

1.Clover leaf model oft-RNA

2. Explain the structure of Polytene Chromosome.

3. Explain Epistasis with suitable example.

4. Explain Klinefelter'sSyndrome.

5. State Law of Complete Dominance with a suitable example.

Section-C

III. Answer any one of the following - **1x10=10**

6. What are supplementary genes? Explain it's mechanism and significance.

7.Describe the Uninememodel and Nucleosome model of Chromosome Structure.

Bangalore City College

B.Sc. I Semester 2018

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. Cell

2. Microtubules

3. Proteins

4.collenchyma

5. Cell theory

Section-B

II. Answer any Two of the following- **2x5=10**

6. Describe the ultrastructure and functions of Mitochondria.

7. Discuss the detailed classification of animal tissues.

8.With the help of neat labelled diagram define Cell wall.

Section-C

III. Answer any one of the following - **1x10=10**

9.Explain the mechanism of membrane transport.

10. Discuss the following-

a. Sandwich Model

b. Model of Robertson

Bangalore City College

B.Sc. I Semester 2018

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. Deletion

2.Apoptosis

3. Epistasis

4.Cell Senescence

5. Inversion

Section-B

II. Answer any four of the following- **4x5=20**

6.Free Radical Theory of Aging

7. Inheritance of ABO blood group

8.Explain complementary genes

9.Structural chromosomal abberations

10. Characteristics of Multiple Alleles

Section-C

III. Answer any one of the following - **1x10=10**

11. What are the multiple factors? Explain by the inheritance of Skin colour in human beings.

12. What is PCD? Describe the various stages involved in this process.

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B.Sc. I Semester 2019

Cell Biology and Genetics

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1.Desmosomes

2. Vacuole

3. Lysosomes

4. Epithelial Tissue

5.Sclerenchyma

Section-B

II. Answer any Two of the following- **2x5=10**

6. Robertson Model.

7. Draw a neat labelled diagram of Nucleus.

8.Describe tight junction.

Section-C

III. Answer any one of the following -1x10=10

9.Explain the structural organization of Animal cell.

10. Describe the structure and functions of Chloroplast.

Bangalore City College

B.Sc. I Semester 2019

Cell Biology and Genetics

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answerthe following- **5x2=10**

1. Genotype and Phenotype

2. Back Cross and Test Cross

3. Genes and Alleles

4. Karyotype and Idiogram

5. Monohybrid Cross and Dihybrid cross

Section-B

II. Answer any four of the following- **4x5=20**

6. Explain the Principle of Segregation.

7. Cri-du chat Syndrome

8. Explain the structure of DNA.

9.Polytene Chromosomes

10. Incomplete Dominance

Section-C

III. Answer any one of the following - **1x10=10**

11. Explain ultrastructure of chromosome and add a note on Nucleosome model .

12. In Poultry the genes for Rose comb, R and pea comb, P if present together, produce walnut comb. The recessive alleles of both, when present together in homozygous condition, produce single comb.

What will be the comb character of the offspring of the following crosses?

a. Rrpp X rr Pp

b. Rrpp X Rr pp

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
I – INTERNAL TEST 2014
BTT-301

MAX MARKS 30

ANSWER ANY SIX- **6x5=30**

1. What is Crossing Over?
2. Write a note on Numerical Aberrations.
3. Copy choice theory of crossing over.
4. What is Bridges theory of non-disjunction?
5. Autopolyploidy
6. Explain Stern's experiment of Crossing over.
7. Write a note on factors affecting crossing over.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOCHEMISTRY
II – INTERNAL TEST 2014
BTT-301

MAX MARKS 30

ANSWER ANY FIVE **5x2=10**

1. What is Linkage?
2. X-Linked Inheritance
3. Reciprocal Cross
4. Coupling and Repulsion
5. Types of Sex Linkage
6. Complete Linkage

ANSWER ANY FIVE **5x4=20**

1. Explain Sex Linkage in Drosophila.
2. Explain plastid Inheritance.
3. Explain Chromosomal theory of inheritance.
4. Male sterility in plants
5. Incomplete linkage
6. Explain attached X- chromosome

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
I– INTERNAL TEST 2015
BTT-301

MAX MARKS 30

ANSWER ANY SIX- **6x5=30**

1. Explain Nucleosome model of DNA
2. Write a note on Polytene Chromosome.
3. Differentiate between Prokaryotic and Eukaryotic Chromosome.
4. Banding pattern of chromosome.
5. Describe Euchromatin and Heterochromatin
6. Write about Human Karyotype.
7. Write a note on Lampbrush chromosome.
8. Write a note on Telomeres.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOCHEMISTRY
II – INTERNAL TEST 2015
BTT-301

MAX MARKS 30

ANSWER ANY FIVE **5x2=10**

1. Deletion and Inversion
2. Maternal Inheritance
3. Linkage
4. Incomplete linkage
5. Nuclear Inheritance
6. Reciprocal Cross

ANSWER ANY FIVE **5x4=20**

1. Kappa particles in Paramecium.
2. Explain Nullisomy with an example.
3. Explain Chromosomal theory of inheritance.
4. Explain Euploidy
5. Petite strains of wheat.
6. CMS in Maize

Bangalore City College

B.Sc. III Semester 2016

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Heterochromatin

2. Idiogram

3. Allele

4. Euchromatin

5. Heredity

Section-B

II. Answer any Two of the following- **2x5=10**

6. Explain Unineme model of DNA.

7. Describe the banding pattern of chromosome.

8. Draw a neat labelled diagram of Polytene chromosome.

Section-C

III. Answer any one of the following - **1x10=10**

9. Mention the difference between Prokaryotic and Eukaryotic Chromosome.

10. Describe the structure and functions of B Chromosome.

Bangalore City College

B.Sc. III Semester 2016

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Cytoplasmic Inheritance

2. Linkage

3. Linkage groups

4. What is X-Y linked inheritance?

5. Incomplete Linkage

6. Crossing Over

Section-B

II. Answer any four of the following- **4x5=20**

6. Synaptonemal Complex

7. Explain plastid inheritance with example.

8. Discuss on CMS in Maize

9. Explain Sex linkage in Drosophila.

10. Define Sutton's Hypothesis of linkage.

Section-C

III. Answer any one of the following - **1x10=10**

11. Describe-

a. Plastid Inheritance

b. Sex linked genes in Moth

12. Write a note on Mitochondrial DNA.

Bangalore City College

B.Sc. III Semester 2017

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Chromosome

2. Genes

3. Telomere

4. Euchromatin

5. Karyotype

Section-B

II. Answer any Two of the following- **2x5=10**

6. Nucleosome model of DNA.

7. Draw a neat labelled diagram of Polytene chromosome.

8. Describe human karyotype.

Section-C

III. Answer any one of the following - **1x10=10**

9. Mention the difference between Euchromatin and Heterochromatin.

10. Describe the structure and functions of Chromosome.

Bangalore City College

B.Sc. III Semester 2017

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Coupling and Repulsion

2. What is attached X chromosome?

3. Abraxix and Drosophila type of sex linkage

4. What is Y linked inheritance?

5. Nuclear Inheritance

Section-B

II. Answer any four of the following- **4x5=20**

6. Kappa particles in Paramecium.

7. Explain plastid inheritance with example.

8. Petite strains of Yeast.

9. Explain Chromosomal theory of inheritance.

10. Define Linkage with example.

Section-C

III. Answer any one of the following - **1x10=10**

11. Describe-

a. Complete and Incomplete linkage

b. Factors affecting linkage

12. Write a note on Chloroplast DNA.

Bangalore City College

B.Sc. III Semester 2018

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Homologous and Heterologous Chromosome

2. C-Banding and Q-Banding

3. Genes and Alleles

4. Linker DNA and Core DNA

5. Facultative and Constitutive Heterochromatin

Section II. Answer any Two of the following- **2x5=10**

6. Explain Multistranded model of DNA.

7. Describe the structure of Polytene chromosome.

8. Describe Lampbrush chromosome.

Section-C

III. Answer any one of the following - **1x10=10**

11. Explain Chromosome theory of inheritance.

12. Explain ultra structure of Eukaryotic chromosome.

Bangalore City College

B.Sc. III Semester 2018

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer any Five of the following- **5x2=10**

1. What is Non- disjunction?

2. What is X-Y linked inheritance?

3. What is attached X chromosome?

4. What is X linked inheritance?

5. Define two types of sex linkage.

6. What is Linkage?

7. What is Y linked inheritance?

Section-B

II. Answer any four of the following- **4x5=20**

6. Explain Bridges theory of Non-disjunction.

7. Explain Linkage in Maize.

8. Explain the inheritance of Kappa particles.

9. Define Reciprocal cross.

10. Explain Incomplete Linkage.

Section-C

III. Answer any one of the following - **1x10=10**

11. Explain Sex linkage in Poultry and Drosophila.

12. Throw a light on Coupling and Repulsion hypothesis.

Bangalore City College

B.Sc. IV Semester 2014

Internal Assessment-I

Max. Marks-30

I. Answer any Six- **6x5=30**

1.Explain structure of DNA.

2.Ɵ model of DNA replication.

3.SOS repair mechanism

4.Mismatch Repair Mechanism

5.Rolling circle model of DNA replication.

6. Explain functions of RNA

7.Photoreactivation

Bangalore City College

B.Sc. IV Semester 2014

Internal Assessment-II

Max. Marks-30

I. Answer any four of the following- **4x5=20**

1.Genetic code

2. RNA polymerase

3.Translation

4. Conjugation

5.Wobble hypothesis

II. Answer any one of the following- **1x10=10**

6. ExplainGeneraizedTransduction

7. Give an account of transcription in eukaryotes.

Bangalore City College

B.Sc. IV Semester 2015

Internal Assessment-I

Max. Marks-30

Answer any Six- **6x5=30**

1. SSB

2.Polycistronic m-RNA

3.Nitrogenous bases

4.Clover leaf model of t-RNA

5.Okazaki Fragments

6. RNA primer

7.Topoisomerase

8. BER

Bangalore City College

B.Sc. IV Semester 2015

Internal Assessment-II

Max. Marks-30

Answer any Six- **6x5=30**

1.What are transposons?

2.Lac operon

3.Transcription in prokaryotes

4.Transformation

5.Gene regulation in eukaryotes

6. Explain the structure of a prokaryotic gene.

7.Explain genetic organization of Mitochondria

Bangalore City College

B.Sc. IV Semester 2016

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Explain any five of the following- 2x5=10

1.Purines and Pyrimidines

2.Cistron and Intron

3. DNA and RNA

4. m-RNA and t-RNA

5. Codon and anticodon

6. Nucleoside and Nucleotide

Section-B

II. Answer any four of the following- 5x4=20

7. Describe DNA polymerase I and III.

8. Describe Watson & Crick model of DNA.

9.ExplainRolling circle model of DNA replication.

10. Explain structure of a gene.

11. Give a comparative account of different forms of DNA.

III. Answer any one of the following - 1x10=10

6. Explain the structure and function of ribosomal RNA and t-RNA.

7. Describe the enzymes involved in DNA replication and discuss their functions.

Bangalore City College

B.Sc. IV Semester 2016

Molecular Biology

Internal Assessment-II

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Explain any five of the following- **2x5=10**

1. Genetic code

2.Poly A tail

3. Catabolic repression

4.Polycistronic m-RNA

5. Promoter

6. Transposable elements

Section-B

II. Answer any two of the following- **5x2=10**

7. Explain genetic organization of Chloroplast.

8. Explain Generaized Transduction.

9.Gene regulation in prokaryote.

III. Answer any one of the following - **1x10=10**

6. Explain translation in prokaryotes.

7. Give an account of transcription in eukaryotes.

Bangalore City College

B.Sc. IV Semester 2017

Molecular Biology

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write any five of the following- **2x5=10**

1. What is lysogeny?

2.Name two different models of prokaryotic DNA replication.

3. What is Transduction? Mention it's Types.

4. Name the Enzymes involved in-

a. Unwinding of the double stranded DNA

b. Synthesis of RNA Primer

c. Mitochondrial DNA Replication

d. DNA replication in Eukaryotic Cell

5. What is Thymine Dimer

6.What is Photoreactivation?

Section-B

II. Answer any Two of the following- **2x5=10**

6. Draw the Genetic Map of Human Mitochondrial DNA.

7. Write a note on Excision Repair Mechanism.

8. Transformation.

Section-C

II. Explain any One of the following- **1x10=10**

9.Explain the mechanism of DNA replicationin prokaryotes.

10. Describe in detail Specialized Transduction.

Bangalore City College

B.Sc. IV Semester 2017

Molecular Biology

Internal Assessment-II

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write any five of the following- **2x5=10**

1. What is Recombination?

2. DNA

3. Transcription

4.Transformation

5. Insertional elements

6.Nucleic Acid

Section-B

II. Answer any Two of the following- **2x5=10**

6. Explain the structure of a prokaryotic gene.

7. Write a note onTrp operon.

8.Explain the mechanism of Transformation in bacteria.

Section-C

II. Explain any One of the following- **1x10=10**

9.Explain different types of RNA. Add a note on their properties.

10. Describe an experiment to prove DNA as the genetic material.

Bangalore City College

B.Sc. IV Semester 2018

Molecular Biology

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Nucleic Acid

2. Okazaki Fragments

3. SSB

4. DNA

5. Replication

Section-B

II. Answer any four of the following- **2x5=10**

6. Explain the structure of prokaryotic gene.

7. Give a comparative account of different forms of DNA.

8. Discuss the properties of genetic code.

Section-C

II. Explain any One of the following- **1x10=10**

9.“DNA as genetic material”. Substantiate with appropriate experimental evidences.

10. Describe the events at replication fork.

Bangalore City College

B.Sc. IV Semester 2017

Molecular Biology

Internal Assessment-II

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write any five of the following- **2x5=10**

1. Gene expression

2. Translation

3. RNA polymerase

4. DNA damage

5. RNA editing

6. Reverse Transcription

Section-B

II. Answer any Two of the following- **2x5=10**

6. Explain recombinational repair mechanism of DNA

7. Explain Wobble hypothesis.

8.Write a note on transposable elements in Drosophila.

Section-C

II. Explain any One of the following- **1x10=10**

9.Write notes on-

a. Transformation

b. Generaised Transduction

10. Describe the steps involved in eukaryotic translation.

Bangalore City College

B.Sc. IV Semester 2019

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Define the following- **5x2=10**

1. Transformation

2. Photoreactivation

3. Recombination

4. Conjugation

5. Transduction

Section-B

I. Write short note/ draw well labeled diagram (Any four)- **5x4=20**

1. BER

2. SOS repair mechanism

3. Mismatch repair mechanism

4. NER

5. Draw a well labeled diagram of Chloroplast DNA.

Section-C

III. Answer any one of the following - **1x10=10**

6. What is conjugation? Define Hfr conjugation.

7. Describe Transformation in detail.

Bangalore City College

B.Sc. IV Semester 2019

Molecular Biology

Internal Assessment-II

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Explain any four of the following- 4x5=20

1. How do eukaryotic genes differ from prokaryotic genes?

2.Give a comparative account of different forms of DNA.

3. Explain the leading and lagging strands.

4. Explain functions of DNA

5. Mention salient features of Genetic code.

Section-B

III. Answer any one of the following - 1x10=10

6. Mention the enzymes involved in DNA replication and discuss their role.

7. Explain Wobble hypothesis and mention the advantages of the Wobble phenomenon to the organism.

Bangalore City College

B.Sc. IV Semester 2014

Internal Assessment-I

Max. Marks-30

I. Answer any Six- **6x5=30**

1.Explain structure of DNA.

2.Ɵ model of DNA replication.

3.SOS repair mechanism

4.Mismatch Repair Mechanism

5.Rolling circle model of DNA replication.

6. Explain functions of RNA

7.Photoreactivation

Bangalore City College

B.Sc. IV Semester 2014

Internal Assessment-II

Max. Marks-30

I. Answer any four of the following- **4x5=20**

1.Genetic code

2. RNA polymerase

3.Translation

4. Conjugation

5.Wobble hypothesis

II. Answer any one of the following- **1x10=10**

6. ExplainGeneraizedTransduction

7. Give an account of transcription in eukaryotes.

Bangalore City College

B.Sc. IV Semester 2015

Internal Assessment-I

Max. Marks-30

Answer any Six- **6x5=30**

1. SSB

2.Polycistronic m-RNA

3.Nitrogenous bases

4.Clover leaf model of t-RNA

5.Okazaki Fragments

6. RNA primer

7.Topoisomerase

8. BER

Bangalore City College

B.Sc. IV Semester 2015

Internal Assessment-II

Max. Marks-30

Answer any Six- **6x5=30**

1.What are transposons?

2.Lac operon

3.Transcription in prokaryotes

4.Transformation

5.Gene regulation in eukaryotes

6. Explain the structure of a prokaryotic gene.

7.Explain genetic organization of Mitochondria

Bangalore City College

B.Sc. IV Semester 2016

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Explain any five of the following- 2x5=10

1.Purines and Pyrimidines

2.Cistron and Intron

3. DNA and RNA

4. m-RNA and t-RNA

5. Codon and anticodon

6. Nucleoside and Nucleotide

Section-B

II. Answer any four of the following- 5x4=20

7. Describe DNA polymerase I and III.

8. Describe Watson & Crick model of DNA.

9.ExplainRolling circle model of DNA replication.

10. Explain structure of a gene.

11. Give a comparative account of different forms of DNA.

III. Answer any one of the following - 1x10=10

6. Explain the structure and function of ribosomal RNA and t-RNA.

7. Describe the enzymes involved in DNA replication and discuss their functions.

Bangalore City College

B.Sc. IV Semester 2016

Molecular Biology

Internal Assessment-II

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Explain any five of the following- **2x5=10**

1. Genetic code

2.Poly A tail

3. Catabolic repression

4.Polycistronic m-RNA

5. Promoter

6. Transposable elements

Section-B

II. Answer any two of the following- **5x2=10**

7. Explain genetic organization of Chloroplast.

8. Explain Generaized Transduction.

9.Gene regulation in prokaryote.

III. Answer any one of the following - **1x10=10**

6. Explain translation in prokaryotes.

7. Give an account of transcription in eukaryotes.

Bangalore City College
B.Sc. IV Semester 2017
Molecular Biology
Internal Assessment-I
Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write any five of the following- **2x5=10**

1. What is lysogeny?

2.Name two different models of prokaryotic DNA replication.

3. What is Transduction? Mention it's Types.

4. Name the Enzymes involved in-

a. Unwinding of the double stranded DNA

b. Synthesis of RNA Primer

c. Mitochondrial DNA Replication

d. DNA replication in Eukaryotic Cell

5. What is Thymine Dimer

6.What is Photoreactivation?

Section-B

II. Answer any Two of the following- **2x5=10**

6. Draw the Genetic Map of Human Mitochondrial DNA.

7. Write a note on Excision Repair Mechanism.

8. Transformation.

Section-C

II. Explain any One of the following- **1x10=10**

9.Explain the mechanism of DNA replicationin prokaryotes.

10. Describe in detail Specialized Transduction.

Bangalore City College

B.Sc. IV Semester 2017

Molecular Biology

Internal Assessment-II

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write any five of the following- **2x5=10**

1. What is Recombination?

2. DNA

3. Transcription

4.Transformation

5. Insertional elements

6.Nucleic Acid

Section-B

II. Answer any Two of the following- **2x5=10**

6. Explain the structure of a prokaryotic gene.

7. Write a note onTrp operon.

8.Explain the mechanism of Transformation in bacteria.

Section-C

II. Explain any One of the following- **1x10=10**

9.Explain different types of RNA. Add a note on their properties.

10. Describe an experiment to prove DNA as the genetic material.

Bangalore City College

B.Sc. IV Semester 2018

Molecular Biology

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Answer the following- **5x2=10**

1. Nucleic Acid

2. Okazaki Fragments

3. SSB

4. DNA

5. Replication

Section-B

II. Answer any four of the following- **2x5=10**

6. Explain the structure of prokaryotic gene.

7. Give a comparative account of different forms of DNA.

8. Discuss the properties of genetic code.

Section-C

II. Explain any One of the following- **1x10=10**

9.“DNA as genetic material”. Substantiate with appropriate experimental evidences.

10. Describe the events at replication fork.

Bangalore City College

B.Sc. IV Semester 2017

Molecular Biology

Internal Assessment-II

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write any five of the following- **2x5=10**

1. Gene expression

2. Translation

3. RNA polymerase

4. DNA damage

5. RNA editing

6. Reverse Transcription

Section-B

II. Answer any Two of the following- **2x5=10**

6. Explain recombinational repair mechanism of DNA

7. Explain Wobble hypothesis.

8.Write a note on transposable elements in Drosophila.

Section-C

II. Explain any One of the following- **1x10=10**

9.Write notes on-

a. Transformation

b. Generaised Transduction

10. Describe the steps involved in eukaryotic translation.

Bangalore City College

B.Sc. IV Semester 2019

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Define the following- **5x2=10**

1. Transformation

2. Photoreactivation

3. Recombination

4. Conjugation

5. Transduction

Section-B

I. Write short note/ draw well labeled diagram (Any four)- **5x4=20**

1. BER

2. SOS repair mechanism

3. Mismatch repair mechanism

4. NER

5. Draw a well labeled diagram of Chloroplast DNA.

Section-C

III. Answer any one of the following - **1x10=10**

6. What is conjugation? Define Hfr conjugation.

7. Describe Transformation in detail.

Bangalore City College

B.Sc. IV Semester 2019

Molecular Biology

Internal Assessment-II

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Explain any four of the following- 4x5=20

1. How do eukaryotic genes differ from prokaryotic genes?

2.Give a comparative account of different forms of DNA.

3. Explain the leading and lagging strands.

4. Explain functions of DNA

5. Mention salient features of Genetic code.

Section-B

III. Answer any one of the following - 1x10=10

6. Mention the enzymes involved in DNA replication and discuss their role.

7. Explain Wobble hypothesis and mention the advantages of the Wobble phenomenon to the organism.

Bangalore City College

M.Sc. I Semester 2014

Internal Assessment-I

Max. Marks-30

I. Write brief notes on any three - **5x3=15**

1.Actin BindingProtein

2.WBC

3.MAPs

4.Plasmodesmata

5. Fluid Masaic Model

II.Answer any one of the following- **1x15=15**

6. Explain the structure of a Eukaryotic cell.

7.Explain senescence and theories of ageing.

Bangalore City College

M.Sc. I Semester 2014

Internal Assessment-II

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. Passive difussion

2.Cyclins

3.Apoptosis

4.Necrosis

5. Symport

II. Answer any two of the following- **10x2=20**

6. Give a detailed account of prophase I of Meiosis. Add a note on it's significance

7. Explain the different types of Active transport across the membrane.

8.Describe in detail the mechanism of nerve transmission.

Bangalore City College

M.Sc. I Semester 2015

Internal Assessment-I

Max. Marks-30

I.Write short notes on the following- **5x2=10**

1. Peroxisomes

2.Action Potential

3.Collagens

4.Selections

5. Nucleolus

II.Answer any two of the following- **10x2=20**

6. Describe the mechanism of Necrosis.

7. Explain the components of blood and their function.

8.Describe the structure and function of plasma membrane.

Bangalore City College

M.Sc. I Semester 2015

Internal Assessment-II

Max. Marks-40

I.Answer any four of the following- **4x5=20**

1.Explain structure and function of nerve cell.

2.Explain Nucleic Acids

3.Explain Membrane Vesicular traffic

4.Cyclindependant kinase

5. ROS

II.Answer any two of the following- **10x2=20**

6. Explain cellular Mechanism of development.

7. Write a detailed account on extracellular matrix.

8.Describe the role of receptors in cell signaling.

Bangalore City College

M.Sc. I Semester 2016

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Intermediate filaments

2. Microtubules

3. Ribosome

4. Vacuole

5. Cell theory

6.Platelets

Section-B

II. Answer any one of the following- **1x15=15**

6. Explain the structure of a Eukaryotic cell.

7. With the help of neat labelled diagram define Nucleus.

8.Write the functions of Endoplasmic Reticulum and Mitochondria.

Bangalore City College

M.Sc. I Semester 2016

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Cathedrins

2. Ion Channels

3. Cyclindependant kinase

4. ATPase Pump

5. Tight Junction

6. Necrosis

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain G protein coupled receptors.

7. Describe the mechanism of Apoptosis.

8. Explain plasmodesmata.

Section-C

III. Answer any one of the following - **1x15=15**

9. Write an account on molecular events of cell division and cell cycle.

10. Describe the mechanism involved in the transport of molecules across the membrane.

Bangalore City College

M.Sc. I Semester 2017

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Sclerenchyma

2. Microtubules

3. Lysosomes

4.Fluid Mosaic Model

5. Desmosomes

6. Proteoglycans

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a detailed account on extracellular matrix.

7. Describe Nucleus.

8. Describe Tight and Gap junction.

Section-C

III. Answer any one of the following - **1x15=15**

9.Explain the structural organization of Eukaryotic cell.

10. Explain the components of blood and their function.

Bangalore City College

M.Sc. I Semester 2017

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Cathedrins

2. Ion Channels

3. Cyclindependant kinase

4. ATPase Pump

5. Tight Junction

6. RBC

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain Na+ and K+ pump.

7. Describe the structure and function of non striated muscles.

8. Explain the membrane vesicular traffic.

Section-C

III. Answer any one of the following - **1x15=15**

9. Write an account on molecular events of Meiosis.

10. Describe the mechanism of cell signaling.

Bangalore City College

M.Sc. I Semester 2018

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Actin BindingProtein

2. WBC

3. MAPs

4. Plasmodesmata

5. Intermediate filaments

6. Collagen

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a detailed account on cell junctions

7. Explain the structural organization of Prokaryotic cell.

8. Describe structural organization of Cell wall.

Section-C

III. Answer any one of the following - **1x15=15**

9.Explain cytoskeleton and its functions.

10. Explain membrane models.

Bangalore City College

M.Sc. I Semester 2018

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Kinase receptors

2. Senescence

3. Cyclindependant kinase

4. Antiport

5. Gap Junction

6. Ageing

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain neurotransmitters.

7. Describe general principles of cell signaling.

8.Describe the structure and function of muscles.

Section-C

III. Answer any one of the following - **1x15=15**

9. Explain the structure and functions of muscles.

10. Describe the Antioxidant DefenceMechanism.

Bangalore City College

M.Sc. I Semester 2019

Internal Assessment-I

Max. Marks-30

I. Write brief notes on any three - **5x3=15**

1. Passive difussion

2.Cathedrins

3. Necrosis

4. Apoptosis

5. Symport

6. Desmosomes

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a note on microtubules.

7. Explain the nature of cytoskeleton elements.

8.Explain the structure and functions of flagella.

Section-C

III. Answer any one of the following - **1x15=15**

9.Write an account on molecular events of cell division and cell cycle.

10. With the help of neat labelled diagram define Nucleus.

Bangalore City College

M.Sc. I Semester 2019

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. RNS

2. Neuron

3. Tight Junction

4. Endocytosis

5. Desmosomes

6.Ion Channels

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain cell to cell adhesion.

7. Write a note on CAMP as a second messenger.

8. Describe the structure and function of nerve cell.

Section-C

III. Answer any one of the following - **1x15=15**

9. Explain the conduction and transmission of nerve impulse..

10. Explain Senescence and theories of ageing.

Bangalore City College

M.Sc. II Semester 2014

Molecular Biology

Internal Assessment-I

Max. Marks-30

I. Write brief notes on any three - **5x3=15**

1. Z-DNA

2. Central Dogma

3. Operon Concept

4. Replication

II. Answer any one of the following- **1x15=15**

6. Explain prokaryotic DNA replication in detail.

7. Explain structure and functions of different types of RNA.

Bangalore City College

M.Sc. I Semester 2014

Molecular Biology

Internal Assessment-II

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. RNA editing

2.RNA primase

3.Transcription factors

4.cAMP receptor protein

5. Reverse Transcription

II. Answer any two of the following- **10x2=20**

6. Write an account on Trp Operon.

7. Explain the mechanism and applications of antisense RNA technology.

8.Describe in detail the mechanism of translation in Eukaryotes.

Bangalore City College

M.Sc. II Semester 2015

Molecular Biology

Internal Assessment-I

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1.DNA Polymerase- I

2. Deamination

3. B-DNA

4.Okazaki fragments

5. Photolyases

II. Answer any two of the following- **10x2=20**

6.ExplainEuokaryotic DNA replication in detail.

7. Explain the types and properties of DNA polymerase.

8.Explain Mismatch Repair mechanism.

Bangalore City College

M.Sc. I Semester 2015

Molecular Biology

Internal Assessment-II

Max. Marks-40

I. Answer any four of the following- **4x5=20**

1. DNA damage

2.Gene silencing

3. Peroxysomes

4. UV radiation

5. SOS repair

II. Answer any two of the following- **10x2=20**

6. Write an account on Lac Operon.

7. Explain Si RNA and MiRna.

8.Describe in detail the post transcriptional modification.

Bangalore City College

M.Sc. II Semester 2016

Molecular Biology

Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.t RNA

2.RNA primase

3. Replication

4.Denaturation

5. Z-DNA

6.Transcription

Section-B

II. Answer any one of the following- **1x15=15**

6. "DNA as genetic material". Substantiate with appropriate experimental evidences.

7. Describe various DNA replication models.

8.Explain different types of RNA. Add a note on their properties.

Bangalore City College

M.Sc. II Semester 2016

Molecular Biology

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Attenuation

2. Translation

3. RNA polymerase

4. Telomerase

5. RNA editing

6.Reverse Transcription

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain Genetic Code.

7. Describe inhibitors of protein synthesis.

8. Explain mechanism of splicing.

Section-C

III. Answer any one of the following - **1x15=15**

9. Discuss the regulation of Gene expression in Eukaryotes.

10. Describe in detail the post translational modification.

Bangalore City College

M.Sc. II Semester 2017

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Rolling Circle Model

2.rRNA

3. Nucleotide

4. Renaturation

5. B-DNA

6.Translation

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a note on nearest neighbor frequency analysis.

7. Explain replication of Viral DNA.

8. Describe Fidelity of replication.

Section-C

III. Answer any one of the following - **1x15=15**

6. Write an account on kinetics of unwinding of double helix.

7. Describe Watson and Crick model of DNA.

Bangalore City College

M.Sc. II Semester 2017

Molecular Biology

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Alkylation

2. Gene silencing

3. Transcription

4. DNA damage

5. Promoters

6.Peroxysomes

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain the ribozyme technology.

7. Describe His Operon.

8. Explain Wobble hypothesis.

Section-C

III. Answer any one of the following - **1x15=15**

6. Write an account on characters and function of bacterial RNA polymerase.

7. Describe mechanism of translation in eukaryotes.

Bangalore City College

M.Sc. II Semester 2018

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.m RNA

2.DNA Pol I

3. Replication

4. Deamination

5. Z-DNA

6.DNA topoisomerase

Section-B

II. Answer any two of the following- **2x5=10**

6. Distinguish between tRNA and rRNA.

7. Describe an experiment to prove DNA as the genetic material.

8.Explain prokaryotic DNA replication mechanism in detail.

Section-C

III. Answer any one of the following - **1x15=15**

9. Explain prokaryotic DNA replication in detail.

10. Explain the types and properties of DNA polymerase.

Bangalore City College

M.Sc. II Semester 2018

Molecular Biology

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Amino acyl tRNAsynthetase

2. Inhibitors of protein Synthesis

3. RNA polymerase

4. Catabolic repression

5. RNA splicing

6. Transcription

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain 5' capping and polyadenylation.

7. Write a note on DNA binding motifs of transcription factors.

8. Explain the process of localization of proteins.

Section-C

III. Answer any one of the following - **1x15=15**

6. Write an account on the role of cAMP and CRP in the expression of Lac genes.

7. Describe mechanism and application of antisense RNA technology.

Bangalore City College

M.Sc. II Semester 2019

Molecular Biology

Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.DNA

2.SSB

3. Promoter

4. Okazaki fragments

5. DNA polymerase

6.Replication

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain the structure and functions of tRNA.

7. Write an account on Rolling circle model of DNA replication.

8.Discuss the Fidelity of replication.

Section-C

III. Answer any one of the following - **1x15=15**

9. Mention the proteins and enzymes involved in DNA replication and discuss their functions.

10. Give a comparative account of different forms of DNA.

Bangalore City College

M.Sc. II Semester 2019

Molecular Biology

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - 5x3=15

1.Tandem repeats

2.Wobble hypothesis

3. Si RNA

4. Antisense RNA

5. Ribosome assembly

6.Cis control elements

Section-B

II. Answer any two of the following- 2x5=10

6. Explain the negative and positive regulation of trp operon.

7. Describe applications of RNAi.

8. Explain Photoreactivation.

Section-C

III. Answer any one of the following - 1x15=15

6. Write an account on the gene silencing mechanisms.

7. Describe mechanism of transport and localization of proteins to mitochondria and chloroplast.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
Plant and Agriculture Biotechnology
M.Sc. III Semester 2014

Internal Assessment-I

MAX MARKS 30

6x5=30
ANSWER ANY SIX-

1.Explain Somatic Embryogenesis.
2. Explain the role of growth regulators in tissue culture.
3. Describe indirect methods of Plant Transformation.
4. Describe Tissue culture Media Preparation.
5. Write a note on Micropropagation.
6. Describe Reporter genes.
7. What are pGreenvectors.
8. Describe Cryopreservation.

Bangalore City College

M.Sc. III Semester 2014

Plant and Agriculture Biotechnology
Internal Assessment-II

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. Secondary metabolites

2.Alkaloids

3.Azotobacter

4. Biopesticides

5.Edible Vaccines

II. Answer any two of the following- **10x2=20**

6. Write an account on the use of heat shock proteins in the improvement of stress tolerance in plants.

7. Explain rice genome project.

8. Describe the production of haploid plants and its applications.

BANGALORE CITY COLLEGE

DEPARTMENT OF BIOTECHNOLOGY

Plant and Agriculture Biotechnology

M.Sc. III Semester 2015

Internal Assessment-I

MAX MARKS 30

6x5=30

ANSWER ANY SIX-

1. Explain protoplast culture.
2. Explain somaclonal variation.
3. Describe direct methods of Plant Transformation.
4. Describe Binary vectors.
5. Write a note on Organogenesis.
6. Describe plasmid vectors.
7. Write an account on selection and maintenance of cell lines.
8. Describe Gene silencing.

Bangalore City College

M.Sc. III Semester 2015

Plant and Agriculture Biotechnology
Internal Assessment-II

Max. Marks-30

I. Write short notes on the following- **5x2=10**

1. Bt Cotton

2.Edible Vaccines

3.Rhizobium

4. Elicitation

5.GM plants

II. Answer any two of the following- **10x2=20**

6. Explain Hairy root culture with its importance.

7. Explain Agrobacterium mediated Gene transfer method.

8. Describe the ethical issues associated with GM crops and GM foods.

Bangalore City College

M.Sc. III Semester 2016

Plant and Agriculture Biotechnology
Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Cryopreservation

2.35S promoter

3. pBin 19

4.MS medium

5. Organogenesis

6. Protoplast culture

Section-B

II. Answer any one of the following- **1x15=15**

6. Explain the method of induction and selection of somaclonal variation in crops.

7. Describe Ti and Ri plasmids.

8. Explain Somatic embryogenesis.

Bangalore City College

M.Sc. III Semester 2016

Molecular Biology

Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Biofertilizers

2. Immobilization

3. Biodegradable plastics

4. Gibberalins

5. Biotransformation

6.Virulence genes

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain the different techniques used for direct gene transfer in plants.

7. Describe Shikimate pathway.

8. Explain GM technology for herbicide resistance.

Section-C

III. Answer any one of the following - **1x15=15**

9. Explain symbiotic and non-symbiotic nitrogen fixation.

10. Describe the role of VAM fungi in Agriculture.

Bangalore City College

M.Sc. III Semester 2017

Plant and Agriculture Biotechnology
Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Explant

2.Haploid plants

3.Somatic Hybrid

4. Ti plasmid

5. Homozygous cell line

6. Somaclonal variation

Section-B

II. Answer any Two of the following- **2x5=10**

6. Explain protoplast culture.

7. Write a note on micropropogation.

8. Describe Microprojection and Electroporation.

Section-C

III. Answer any one of the following - **1x15=15**

6. Explain plasmid vectors.

7. Explain Agrobacterium mediated Gene transfer method.

Bangalore City College

M.Sc. III Semester 2017

Plant and Agriculture Biotechnology
Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. BtBrinjal

2.Golden rice

3.Mycorrhiza

4. Biofortification

5.RNAi

6.Vermicompost

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain the GM technology used for edible vaccine production.

7. Describe terminator gene technology.

8. Explain transgenic technology for the production of fungal resistant crops.

Section-C

III. Answer any one of the following - **1x15=15**

6. Write a detailed account on integrated pest management.

7. Discuss the role of Biofertilizers in crop improvement.

Bangalore City College

M.Sc. III Semester 2018

Plant and Agriculture Biotechnology
Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Germplasm collection

2.Binary vectors

3. pGreen vectors

4.Explant

5. Caulogenesis

6. MS medium

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a note on Germplasm conservation.

7. Write a note on the use of Ti plasmids as vectors.

8.Explain Somatic embryogenesis.

Section-C

III. Answer any one of the following - **1x15=15**

6. Explain somaclonal variation in detail.

7. Explain the methods involved in protoplast culture and and somatic hybridization.

Bangalore City College

M.Sc. III Semester 2018

Plant and Agriculture Biotechnology
Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Edible vaccines

2. ABA

3. Biodegradable plastics

4. Immobilization

5. Rhizobium

6. Elicitor

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain GM technology for herbicide resistance

7. Write a note on Vermicomposting technology.

8.Describe Shikimate pathway.

Section-C

III. Answer any one of the following - **1x15=15**

9. Describe the role of VAM fungi in Agriculture.

10. Describe biological nitrogen fixation.

Bangalore City College

M.Sc. III Semester 2019

Plant and Agriculture Biotechnology
Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Hormones

2.Haploid plants

3.Somatic Hybrid

4.Ti plasmid

5. Explant

6. Somatic embryogenesis

Section-B

II. Answer any Two of the following- **2x5=10**

6. Describe Tissue culture Media Preparation.

7. Write a note on haploid plant production.

8.Explain different molecular markers used in the selection of recombinants.

Section-C

III. Answer any one of the following - **1x15=15**

6. Explain Agrobacterium mediated Gene transfer method.

7. Describe Ti and Ri plasmids.

Bangalore City College

M.Sc. III Semester 2019

Plant and Agriculture Biotechnology
Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Vermicompost

2.Biodegradable plastics

3.RNAi

4. Auxin

5.Mycorrhiza

6.Bt Cotton

Section-B

II. Answer any two of the following- **2x5=10**

6. Give an account of antisense technology for extending shelf life of fruits.

7. Explain production of edible vaccines by transgenic technology .

8.Describe terminator gene technology.

Section-C

III. Answer any one of the following - **1x15=15**

6.Discuss the role of Biofertilizers in crop improvement.

7. Write a detailed account on role of growth regulators in plant development.

BANGALORE CITY COLLEGE

DEPARTMENT OF BIOTECHNOLOGY

M.Sc. IV Semester 2014

Medical Biotechnology

Internal Assessment-I

MAX MARKS 30

4x5=20

I. Answer any Four-

1.ADA genes

2.Amoebiasis

3.Regenerative medicine

4.Widal reaction

5.RIA

II. Answer any one-1x10=10

1.Give an account of genes associated with cancer.

2. Describe the mode of infection, symptoms and control measures of HIV infections.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
M.Sc. IV Semester 2014

Medical Biotechnology
Internal Assessment-II

Max. Marks-30

I. Answer any Four **4x5=20**

1. Nanomaterials

2.Use of stem cells

3.Drug receptors

4. LDH

5.SCID

II. Answer any one-1x10=10

1.Describe the role of stem cells in tissue engineering and regenerative medicine.

2. Discuss the importance of nano-materials in the drug delivery and disease diagnostics.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
M.Sc. IV Semester 2015

Medical Biotechnology
Internal Assessment-I

MAX MARKS 40

5x6=30

I. Answer any Five-

1.Prenatal diagnosis
2.p53
3.Amoebiasis
4.Tumour
5.AIDS
6.Malaria
7.Irwin profile test

II. Answer any one-1x10=10

1.Discuss the epidemiology, symptomatology and prophylaxis of Rabies.

2. Explain the significance of biochemical markers used in liver functions.

BANGALORE CITY COLLEGE

DEPARTMENT OF BIOTECHNOLOGY

M.Sc. IV Semester 2015

Medical Biotechnology

Internal Assessment-II

MAX MARKS 40

6x5=30

I. Answer any Six-

1.ED50

2.Von Gierke disease

3.Drug and gene delivery

4. Beta Thalasemia

5.Recombinant therapy

6.Cellular therapy

7.Human Genome Project

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
M.Sc. IV Semester 2016

Medical Biotechnology
Internal Assessment-I

MAX MARKS 30

5x3=15

I. Answer any Three-

1.Oncogenes

2.Rabies

3.AIDS

4.Aspergillosis

II. Answer any one-1x15=15

1.Give a detailed account of monoclonal antibodies and their role in cancer treatment.

2.Discuss the epidemiology, symptomatology and prophylaxis of Typhoid.

BANGALORE CITY COLLEGE

DEPARTMENT OF BIOTECHNOLOGY

M.Sc. IVSemester 2016

Medical Biotechnology

Internal Assessment-II

MAX MARKS 40

5x3=15

Section-A

I. Answer any Three-

1.Erythropoitin

2.LD50

3.Liver Function Test

4.ADME

Section-B

II. Answer any Two-5x2=10

1.Write a note on Nanobiotechnology in drug delivery.

2.Explain role of insulin in diabetes.

3.Explain the role of stem cells in tissue repair.

Section-C

III. Answer any one of the following - **1x15=15**

1. Givean account of types and synthesis of nanomaterials.Add a note on their applications.

2. Explain the properties and sources of stem cells with their applications.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
M.Sc. IVSemester 2017
Medical Biotechnology
Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any Three - **3x5=15**

1.Tumour suppressive genes

2.Cryptococcosis

3. Tumour markers

4.STD

5. Radio therapy

Section-B

II. Answer any one of the following - **1x15=15**

1. Explain epidemiology and control measures of Amoebiasis.

2. Explain the cancer chemotherapy.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
M.Sc. IVSemester 2017
Medical Biotechnology
Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x5=25**

1. Von Gierke disease

2. Nanomaterials

3. Cardiac Function tests

4.βThalasemia

5. Nanobiosensors

6.Alkaptonuria

Section-B

II. Answer any one of the following - **1x15=15**

7. Explain liver and gastric function tests.

8. Write a detailed account on treatment of genetically inherited diseases.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
M.Sc. IVSemester 2018
Medical Biotechnology
Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x5=25**

1. Explain Hepatitis B

2. Explain Gene therapy

3. Write a note on infections caused by protozoans.

4.Describe radio therapy in cancer treatment

5. Explain the cellular changes involved in tumour formation.

6.Explain types of tumour.

Section-B

II. Answer any one of the following - **1x15=15**

7. Discuss the epidemiology, symptomatology and prophylaxis of viral disease.

8. Give an account of modes of treatment available for cancer.

BANGALORE CITY COLLEGE

DEPARTMENT OF BIOTECHNOLOGY

M.Sc. IVSemester 2018

Medical Biotechnology

Internal Assessment-II

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any Three - **3x5=15**

1. Nanobiosensors

2. ED50

3. Kidney function test

4.Creatine kinase

Section-B

II. Answer any one of the following - **1x15=15**

5.Explain cardiac and gastric function tests.

6. Givean account of types and synthesis of nanomaterials.Add a note on their applications.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
M.Sc. IVSemester 2019
Medical Biotechnology
Internal Assessment-I

Max. Marks-30

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any Three - **3x5=15**

1. Histoplasmosis

2. Methods of tumour detection

3. Cryptococcosis

4.Malaria

5. Radiotherapy

Section-B

II. Answer any one of the following - **1x15=15**

7. Describe the mode of infection, symptoms and control measures of HIV infection.

8. Explain the role of p53 in cancer development.

BANGALORE CITY COLLEGE
DEPARTMENT OF BIOTECHNOLOGY
M.Sc. IVSemester 2019
Medical Biotechnology
Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x5=25**

1. Explain insulin analogs and it's role in diabetes.

2. Write the principle and applications of ELISA in disease diagnosis.

3. Explain Galactosemia.

4.Write a note on nanobiotechnology in drug delivery.

5. Explain the importance of conventional drug design.

6.Describe significance of biochemical markers.

Section-B

II. Answer any one of the following - **1x15=15**

7. Explain the properties and sources of stem cells with their applications.

8. Explain-

a. Gout

b. Irwin profile test

c. Sickle cell anaemia

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. BtBrinjal

2.Golden rice

3.Mycorrhiza

4. Biofortification

5.RNAi

6.Vermicompost

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain the GM technology used for edible vaccine production.

7. Describe terminator gene technology.

8. Explain transgenic technology for the production of fungal resistant crops.

Section-C

III. Answer any one of the following - **1x15=15**

6. Write a detailed account on integrated pest management.

7. Discuss the role of Biofertilizers in crop improvement.

Bangalore City College

M.Sc. III Semester 2018

Plant and Agriculture Biotechnology
Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Germplasm collection

2.Binary vectors

3. pGreen vectors

4.Explant

5. Caulogenesis

6. MS medium

Section-B

II. Answer any Two of the following- **2x5=10**

6. Write a note on Germplasm conservation.

7. Write a note on the use of Ti plasmids as vectors.

8. Explain Somatic embryogenesis.

Section-C

III. Answer any one of the following - **1x15=15**

6. Explain somaclonal variation in detail.

7. Explain the methods involved in protoplast culture and and somatic hybridization.

Bangalore City College

M.Sc. III Semester 2018

Plant and Agriculture Biotechnology
Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1. Edible vaccines

2. ABA

3. Biodegradable plastics

4. Immobilization

5. Rhizobium

6. Elicitor

Section-B

II. Answer any two of the following- **2x5=10**

6. Explain GM technology for herbicide resistance

7. Write a note on Vermicomposting technology.

8.Describe Shikimate pathway.

Section-C

III. Answer any one of the following - **1x15=15**

9. Describe the role of VAM fungi in Agriculture.

10. Describe biological nitrogen fixation.

Bangalore City College

M.Sc. III Semester 2019

Plant and Agriculture Biotechnology
Internal Assessment-I

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Hormones

2.Haploid plants

3.Somatic Hybrid

4. Ti plasmid

5. Explant

6. Somatic embryogenesis

Section-B

II. Answer any Two of the following- **2x5=10**

6. Describe Tissue culture Media Preparation.

7. Write a note on haploid plant production.

8.Explain different molecular markers used in the selection of recombinants.

Section-C

III. Answer any one of the following - **1x15=15**

6. Explain Agrobacterium mediated Gene transfer method.

7. Describe Ti and Ri plasmids.

Bangalore City College

M.Sc. III Semester 2019

Plant and Agriculture Biotechnology
Internal Assessment-II

Max. Marks-40

Instruction- Draw neat labelled diagrams wherever necessary.

Section-A

I. Write brief notes on any five - **5x3=15**

1.Vermicompost

2.Biodegradable plastics

3.RNAi

4. Auxin

5.Mycorrhiza

6.Bt Cotton

Section-B

II. Answer any two of the following- **2x5=10**

6. Give an account of antisense technology for extending shelf life of fruits.

7. Explain production of edible vaccines by transgenic technology .

8. Describe terminator gene technology.

Section-C

III. Answer any one of the following - **1x15=15**

6.Discuss the role of Biofertilizers in crop improvement.

7. Write a detailed account on role of growth regulators in plant development.

INTERNAL EXAMINATION FOR B.COM & BBA –2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -PRINCIPLES OF EVENT MANAGEMENT **MAX MARKS= 30**
COURSE: - B.COM **TIME:-1 ½ HOUR**
SEMESTER:-IV

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Give the meaning of event management?
2) What is record keeping?
3) What are the 5 C's of an event?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) Explain Electronic & Manual record keeping?
5) Explain the event procedure?
6) Explain the five basic principles of event planning?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) Explain the qualities of good event manager?
8) Explain the technical staff for event management?

INTERNAL EXAMINATION FOR B.COM & BBA –MARCH 2018
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -PRINCIPLES OF EVENT MANAGEMENT **MAX MARKS= 30**
COURSE: - B.COM **TIME:-1 ½ HOUR**
SEMESTER:-IV

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Give the meaning of event management?
2) Who is Technical staff?
3) What is record keeping?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) What are the characteristics of event?
5) Explain the event procedure?
6) Explain the five basic principles of event planning?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) Explain the technical staff for event management?
8) Define decision making? Explain the decision makers?

INTERNAL EXAMINATION FOR B.COM & BBA –2017
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -PRINCIPLES OF EVENT MANAGEMENT **MAX MARKS= 30**
COURSE: - B.COM **TIME:-1 ½ HOUR**
SEMESTER:-IV

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Give the meaning of event management?
2) Who is an event manager?
3) Name any 5 Education & Career events?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) What are the characteristics of event?
5) Explain Electronic & Manual record keeping?
6) Explain the event procedure?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) Explain the steps in developing record keeping?
8) Explain the qualities of good event manager?

INTERNAL EXAMINATION FOR B.COM & BBA –2016
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -PRINCIPLES OF EVENT MANAGEMENT
B.COM, IV SEM

MAX MARKS= 30 **TIME:-1 ½ HOUR**

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Give the meaning of event management?
2) Who is Technical staff?
3) What is record keeping?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) What are the characteristics of event?
5) Explain the event procedure?
6) Explain the five basic principles of event planning?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) Explain the steps in developing record keeping?
8) Explain the technical staff for event management?

INTERNAL EXAMINATION FOR B.COM & BBA –2015
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -PRINCIPLES OF EVENT MANAGEMENT
B.COM, IV SEM

MAX MARKS= 30 **TIME:-1 ½ HOUR**

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Give the meaning of event management?
2) Who is Technical staff?
3) Name any 5 Education & Career events?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) What are the characteristics of event?
5) Explain the event procedure?
6) Explain the five basic principles of event planning?

Answer any 2 question from the following carrying 14 marks:- **14x2=28**

7) Explain the qualities of good event manager?
8) Explain the technical staff for event management?

INTERNAL EXAMINATION FOR B.COM & BBA –2014
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -PRINCIPLES OF EVENT MANAGEMENT
B.COM, IV SEM

MAX MARKS= 30 **TIME:-1 ½ HOUR**

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Name any 5 Education & Career events?
2) Who is Technical staff?
3) What are the 5 C's of an event?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) What are the characteristics of event?
5) Explain the event procedure?
6) Explain the five basic principles of event planning?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) Explain the qualities of good event manager?
8) Define decision making? Explain the decision makers?

INTERNAL EXAMINATION FOR B.COM & BBA –MARCH 2018
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -BUSINESS REGULATIONS **MAX MARKS= 30**
COURSE: - B.COM **TIME:-1 ½ HOUR**
SEMESTER:-VI

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Define Law?
2) Mention the sources of law?
3) Who is an unpaid seller?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) Explain the various modes of discharge of contract?
5) Explain the essentials of contract?
6) Distinguish between sale & agreement to sale?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) What is business law? Explain its objectives & sources?
8) "All contracts are agreements, but all agreements not contracts"? Discuss.

INTERNAL EXAMINATION FOR B.COM & BBA –MARCH 2017
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -BUSINESS REGULATIONS **MAX MARKS= 30**
COURSE: - B.COM **TIME:-1 ½ HOUR**
SEMESTER:-VI

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) What are conditions?
2) What are essentials of Sale of Goods Act?
3) What is the need of Competition Act?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) Explain the various modes of discharge of contract?
5) Explain the need of business law?
6) Distinguish between sale & agreement to sale?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) Explain the rights & duties of buyer?
8) "All contracts are agreements, but all agreements not contracts"? Discuss.

INTERNAL EXAMINATION FOR B.COM & BBA – 2016
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -BUSINESS REGULATIONS
VI B.COM

MAX MARKS= 30 **TIME:-1 ½ HOUR**

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Define Law?
2) Mention the sources of law?
3) Who is an unpaid seller?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) Explain the various modes of discharge of contract?
5) Explain the essentials of contract?
6) Distinguish between sale & agreement to sale?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) What is business law? Explain its objectives & sources?
8) "All contracts are agreements, but all agreements not contracts"? Discuss.

INTERNAL EXAMINATION FOR B.COM & BBA – 2015
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -BUSINESS REGULATIONS
VI B.COM

MAX MARKS= 30 **TIME:-1 ½ HOUR**

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Define Law?
2) Mention the sources of law?
3) Who is an unpaid seller?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) Explain the various modes of discharge of contract?
5) Explain the essentials of contract?
6) Distinguish between sale & agreement to sale?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) What is business law? Explain its objectives & sources?
8) "All contracts are agreements, but all agreements not contracts"? Discuss.

INTERNAL EXAMINATION FOR B.COM & BBA –MARCH 2014

DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -BUSINESS REGULATIONS
VI SEM B.COM

TIME:-1 ½ HOUR **MAX MARKS= 30**

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Define Law?
2) Mention the sources of law?
3) What are conditions?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) Explain the various modes of discharge of contract?
5) Explain the essentials of contract?
6) Distinguish between sale & agreement to sale?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) What is business law? Explain its objectives & sources?
8) "All contracts are agreements, but all agreements not contracts"? Discuss.

INTERNAL EXAMINATION FOR B.COM & BBA –MARCH 2019
DEPARTMENT OF COMMERCE AND MANAGEMENT
BANGALORE CITY COLLEGE
CHELIKERE, KALYAN NAGAR
BANGALORE-560043

SUBJECT: -BUSINESS REGULATIONS **MAX MARKS= 30**
COURSE: - B.COM **TIME:-1 ½ HOUR**
SEMESTER:-VI

Answer any 5 questions from the following carrying 2 marks each:- **2x2=4**

1) Define Law?
2) What are conditions?
3) What is the need of Competition Act?

Answer any 2 questions from the following carrying 6 marks each:- **6x2=12**

4) Explain the various modes of discharge of contract?
5) Explain the essentials of contract?
6) Distinguish between sale & agreement to sale?

Answer any 2 question from the following carrying 14 marks:- **14x1=14**

7) Explain the rights & duties of buyer?
8) Explain types of contract according to Indian Contract Act?