D 41952 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. (L.R.P.) DEGREE EXAMINATION, APRIL 2018

(CUCBCSS—UG)

Common Course

A 13—ENTREPRENEURSHIP DEVELOPMENT

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

A. Choose the correct answer :

1 Entrepreneurship is a function of ———.

(a) Innovation. (c) Both (a) and (b).

(b) Leadership. (d) None of these.

2 ——— 'is not a social factor that affects entrepreneurial growth.

(a) Market. (c) Occupation.

(b) Caste system. (d) Family background.

3 The aim of ——— is to achieve the project objectives with the minimum expenditure and adequate resources.

(a) Project identification. (c) Project formulation.

(b) Project selection. (d) None of these.

4 ——— are entrepreneurs those who refuse to adopt and use opportunities to make changes in production.

(a) Adoptive entrepreneurs. (c) Fabian entrepreneurs.

(b) Drone entrepreneurs. (d) Rational entrepreneurs.

5 SSIs where the process of production will be only through manual labour and no machines will be used are known as ———.

(a) Small scale enterprises. (c) Cottage industries.

(b) Village industries. (d) All the above.

Turn over

B. Fill in the blanks :

6 ———— is a person who combines capital and labour for the purpose of production.

7 ———— is an entrepreneur who is induced to take up an entrepreneurial activity due to assistance, incentive, subsidies etc.

8 In ———— layout similar machines are placed in one place according to the functions they perform.

9 KITCO stands for ————.

10 ———— is a specific activity on which money is spent in the expectation of returns.

(10 × 1= 10 marks)

Part B (Short Answer Questions)

Answer any **eight** *questions.*
Each question carries 2 *marks.*

11. What is meant by enterprise ?
12. What do you mean by financial risk ?
13. Who is a Fabian entrepreneur ?
14. What do you mean by TRYSEM ?
15. What is meant by project appraisal ?
16. What is meant by venture capital ?
17. What is a project report ?
18. What do you mean by single window scheme ?
19. What is an incentive ?
20. Define working capital ?

(8 × 2 = 16 marks)

Part C (Short Essay Questions)

Answer any **six** *questions.*
Each question carries 4 *marks.*

21. Differentiate an entrepreneur and a manager.
22. What are the qualities of a successful entrepreneur ?
23. How Clarence Danhof classified entrepreneurs ?
24. Explain the need for incentives.
25. Explain the functions of DIC to promote entrepreneurship.

26. What are the pre-requisites of successful project implementation ?

27. What are the characteristics of a project ?

28. What are the factors to be considered while screening the project idea ?

(6 × 4 = 24 marks)

Part D (Essay Questions)

Answer any **two** *questions.*
Each question carries 15 *marks.*

29 Who are woman entrepreneurs ? What are the problems faced by woman entrepreneurs ?

30. "Project formulation is an important stage in the project management". Do you agree ? Briefly explain various phases of project management.

31. What do you mean by SIDBI ? What are its functions ? Explain various schemes of SIDBI to assist entrepreneurs.

(2 × 15 = 30 marks)

C 61208 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2019

(CUCBCSS—UG)

Common Course for L.R.P.

A 13—ENTREPRENEURSHIP DEVELOPMENT

(2014 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

A. Choose the correct answer :

1. Entrepreneur is a person who undertakes the process of ————.
   (a) Creation. (c) Organization.
   (b) Risk taking. (d) All the above.
2. ———— is a type of finance in which the owner of asset allows the user to use the asset for a specified period for a consideration.
   (a) Venture capital. (c) Lease finance.
   (b) Hire purchase. (d) None of These.
3. Under ———— layout the men and equipments are moved to the material which remain in one place.
   (a) Stationery layout. (c) Combined layout.
   (b) Process layout. (d) Product layout.
4. KSIDC was established in the year ————.
   (a) 1955. (c) 1948.
   (b) 1990. (d) 1961.
5. ———— is the process of examining technical, economic, financial, commercial and social aspects of a project.
   (a) Project identification. (c) Screening of idea.
   (b) Project formulation. (d) None of these.

Turn over

B. Fill in the blanks :

6. ———— is the financial assistance that is to be used during the time lag between sanctioning and disbursement of term loans.
7. NPV stands for ————.
8. Fabian entrepreneurs are shy and lazy, while innovating entrepreneurs are
9. NAYE stands for ————.
10. In ———— Layout machines and equipments are arranged in the sequence or order in which they are used in the production.

(10 × 1 = 10 marks)

Part B (Short Answer Questions)

Answer any **eight** *questions.*
Each question carries 2 *marks.*

11. Who is an intrapreneur ?
12. What do you mean by plant layout ?
13. What you mean by subsidy ?
14. What is DIC ?
15. What is Seed capital ?
16. What is Entrepreneurship ?
17. What is risk ?
18. Define sick units.
19. What is plant capacity ?
20. What is a project report ?

(8 × 2 = 16 marks)

Part C (Short Essay Questions)

Answer any **six** *questions.*
Each question carries 4 *marks.*

21. What are the objectives of EDP ?
22. What are the skills required for an entrepreneur ?
23. Explain various phases of project life cycle.
24. What are the factors affecting choice of location ?
25. What are the advantages and disadvantages of product layout ?

26. Explain the importance of network analysis.

27. What are the sources of project ideas ?

28. Explain industrial estates.

(6 × 4 = 24 marks)

Part D (Essay Questions)

Answer any **two** *questions.*
Each question carries 15 *marks.*

29. Who is an entrepreneur ? What are the functions of entrepreneur ?

30. What do you mean by SSI units ? Explain the problems of SSI units.

31. What is factory layout ? Briefly describe various types of layout. What are the factors influencing the decision of factory layout ?

(2 × 15 = 30 marks)

C 80841 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, APRIL 2020

Common Course

A 13—ENTREPRENEURSHIP DEVELOPMENT

(2014 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*

Each question carries 1 *mark.*

(A) Choose the correct answer :

1 Which one of the following is a most important function of an entrepreneur ?

(a) Decision making function. (b) Managerial function.

(c) Function of innovation. (d) Risk assumption function.

2 Node represents :

(a) Slack. (b) Activity.

(c) Network. (d) Event.

3 Which one of the following is a post investment decision report ?

(a) Feasibility report. (b) Progress report.

(c) Project report. (d) Interim report.

4 ———————— incubators create employment.

(a) Technology. (b) General purpose.

(c) Specialist. (d) None of these.

5 After screening the ideas, they are translated in to project ————————.

(a) Portfolio. (b) Profiles.

(c) Proposal. (d) None of these.

(B) Fill in the blanks :

6 The entrepreneurs who launches an 'online business' is called ————————.

7 ———————— promotes and develops tiny, cottage and small industries.

8 The minimum number of members to form a ED Club is ————————.

9 Seed capital assistance is given to ———————— entrepreneurs.

10 ———————— shows the period taken to recoup the investment.

(10 × 1 = 10 marks)

Part B (Short Answer Questions)

Answer any **eight** *questions in two* **or** *three sentences.*
Each question carries 2 *marks.*

11 What is meant by adoptive entrepreneurs ?

12 What do you mean by business incubators ?

13 What is project identification ?

14 What is process lay out ?

15 What is a crash project ?

16 What is a bogus unit ?

17 What is meant by Kaushal Kendras ?

18 Who is a first generation entrepreneur ?

19 What is a service enterprise ?

20 Expand :

(a) TRYSEM. (b) KSEDM.

(8 × 2 = 16 marks)

Part C (Short Essays)

Answer any **six** *questions.*
Each question carries 4 *marks.*

21 What are the features of industrial estates ?

22 Explain the elements of project formulation.

23 Explain the various sources of business ideas.

24 Write a note on industrial policies of Kerala.

25 State the crucial factors to be kept in mind before the selecting the location.

26 Enumerate the factors affecting entrepreneurial growth.

27 Describe the functions of SIDBI.

28 Explain the steps in network analysis.

(6 × 4 = 24 marks)

Part D (Long Essays)

Answer any **two** *questions.*
Each question carries 15 *marks.*

29 Define women entrepreneurship. What are the problems faced by them ? How it can be cured ?

30 Explain the measures taken by Government to promote MSMEs in India.

31 "Business opportunities in Kerala are very bright". Substantiate.

(2 × 15 = 30 marks)

C 3499 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION, APRIL 2021

Common Course

A 13—ENTREPRENEURSHIP AND ENVIRONMENTAL SCIENCE

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answers)

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. Who is an induced entrepreneur ?
2. Define MSMEs.
3. What is land pollution ?
4. What do industrial effluents mean ?
5. What is an EO Club ?
6. What is environmental audit ?
7. What do you know about Threshold Limit Values ?
8. What do you mean by feasibility analysis report ?
9. What are synthetic pollutants ? Give examples.
10. What is seed capital assistance ?
11. What do you understand by sustainable development ?
12. What are the causes of water pollution ?
13. What is the use of wet scrubbers ?
14. What do sick units mean ?
15. Write the meaning of Polluter Pays Principle.

(10 × 3 = 30 marks)

Turn over

Section B (Short Essays)

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. What are the causes of solid wastes ?
17. Explain the advantages of industrial incentives and subsidies.
18. Write a note on laws governing pollutions.
19. How do business incubators help entrepreneurs ?
20. How can we control noise pollution ?
21. Write up thy services rendered by KITCO to entrepreneurs.
22. Explain the barriers of sustainability.
23. Explain the factors to be considered while screening business ideas.

(5 × 6 = 30 marks)

Section C (Essay)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Explain factors affecting entrepreneurial growth.
25. Illustrate the effects of air pollution.
26. Discuss the problems of MSMEs in India
27. Explain the methods of wastewater treatment.

(2 × 10 = 20 marks)

C 2148 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, APRIL 2021

Common Course for L.R.P.

A 13—ENTREPRENEURSHIP DEVELOPMENT

(2014 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*

Each question carries 1 *mark.*

A) Choose the correct answer :

1 Entrepreneurs within the organization is called ————.

(a) Ultrpreneurs. (b) Copreneurs.

(c) Intrapreneurs. (d) Ontrepreneurs.

2 An individual who initiates, creates and manages a new business can be called ————.

(a) Leader. (b) Manager.

(c) Professional. (d) Entrepreneur.

3 ———— capital is the initial capital used while starting the business and it can come from founders, friends or families.

(a) Seed capital. (b) Fixed capital.

(c) Working capital. (d) Venture capital.

4 ———— are those who identify, evaluate and exploit opportunities that create social values and not personal wealth.

(a) Social entrepreneurs. (b) Drone entrepreneurs.

(c) Commercial entrepreneurs. (d) Innovative entrepreneurs.

5 The main objective of ———— incubators is to create employment.

(a) Technology incubators. (b) General purpose incubators.

(c) Specialist incubators. (d) Academic incubators.

B) Fill in the blanks :

6 Any investment opportunity which is to be exploited for profit is known as ————.

7 Length of time to recover initial cost is called ————.

8 ———— capital generally refers to the amount required for acquiring fixed assets like land and building, machinery etc.

9 ———— is a business person who does business online as opposed to an entrepreneur who does business offline.

10 ———— refers to the volume or number of units that can be manufactured during a given period.

(10 × 1 = 10 marks)

Part B (Short Answer Questions)

Answer any **eight** *questions in two* **or** *three sentences.*
Each question carries 2 *marks.*

11 What do you mean by environmental scanning ?

12 What do you mean by a project report ?

13 Expand PERT and CPM.

14 What is meant by entrepreneurial competencies ?

15 What do you mean by break-even point ?

16 What is a sick unit ?

17 What do you mean by entrepreneurship ?

18 What do you mean by copreneurs ?

19 Who is a novice ?

20 What do you mean by subsidy ?

(8 × 2 = 16 marks)

Part C (Short Essays)

Answer any **six** *questions.*
Each question carries 4 *marks.*

21 What are the various classifications of projects ?

22 List out the differences between a manager and an entrepreneur.

23 Explain cash flow analysis and ratio analysis.

24 Write a short note on NIESBUD.

25 What are the various types risks involved with entrepreneurship ?

26 List out the advantages and limitations of payback method.

27 List out the various functions or roles of ED clubs.

28 Explain various contents or subject matter of project report.

(6 × 4 = 24 marks)

Part D (Long Essays)

Answer any **two** *questions.*
Each question carries 15 *marks.*

29 What you mean by project management ? List out its objectives. What are the phases or stages involved in project management ?

30 Define women entrepreneurship. Discuss various problems faced by women entrepreneurs.

31 What do you mean by business incubation ? Explain various benefits and services provided by the business incubators.

(2 × 15 = 30 marks)

C 21501 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION, APRIL 2022

Common Course For L.R.P. (Language Reduced Pattern)

A 13—ENTREPRENEURSHIP AND ENVIRONMENTAL SCIENCE

Time : Two Hours and a Half Maximum : 80 Marks

Section A

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. Who is a motivated entrepreneur ?
2. What is plant capacity ?
3. What is acid rain ?
4. What is ground water pollution ?
5. What is fixed capital ?
6. What is EDP ?
7. What is meant by agro chemicals ?
8. What is the meaning of business finance ?
9. Define pollution.
10. What is air quality index ?
11. What is global warming ?
12. What is plant location ?
13. What is solid waste management ?
14. What is noise pollution ?
15. What is a primary pollutant ? Give an example.

(10 × 3 = 30 marks)

Turn over

Section B

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. Explain the barriers to sustainability.
17. How can we manage industrial effluents ?
18. Explain the different sources of business finance.
19. State the different types of particulates resulting to air pollution.
20. Explain the strategies for managing e-waste.
21. Describe the factors affecting entrepreneurial growth.
22. Explain the services rendered by KINFRA.
23. What are the implications of air pollution on human health ?

(5 × 6 = 30 marks)

Section C

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Describe the process of setting up of MSMEs.
25. Explain the various control measures to be undertaken by industrial undertakings to control land pollution.
26. Explain the business subsidies offered for the promotion of MSMEs in India.
27. Discuss briefly the effects of water pollution. What are the steps required to be taken by an industry to control water pollution ?

(2 × 10 = 20 marks)

C 41180 **(Pages : 2)** **Name.....**

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2023

Common Course (Language Reduced Pattern)

A13—ENTREPRENEURSHIP AND ENVIRONMENTAL SCIENCE

(2019 Admission onwards)

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answers)

Answer questions up to 25 *marks.*
Each question carries 2 *marks.*
(ceiling 25 marks)

1. Define Entrepreneur.
2. How to reduce water pollution ?
3. What are the effects of land pollution ?
4. What do you mean by pure entrepreneur ?
5. What are the standards for potable water ?
6. Define Pollutant.
7. What do you mean by sustainable development ?
8. Discuss Acid rain.
9. What is bio magnification ?
10. Who is an Intrapreneur ?
11. Who is a fabian entrepreneur ?
12. What is air quality index ?
13. What do you mean by plant layout ?
14. What is an equity share ?
15. What is gravitational settling chamber ?

Turn over

Section B (Paragraph)

Answer questions up to 35 *marks.*
Each question carries 5 *marks.*
(ceiling 35 marks)

16. Explain characteristics of an entrepreneur.
17. Explain factors responsible for air pollution.
18. Explain different activities to prevent industrial pollution.
19. Explain the environment policies and regulations to prevent pollution.
20. Explain various steps involved in starting up an MSME.
21. How absorbers control particulate emission ?
22. Explain the adverse effects of noise pollution.
23. Discuss various documents required to register as MSME.

Section C (Essay)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Explain the role of entrepreneurs in economic development.
25. Define pollution. Explain different types of pollutions.
26. Explain the effects of pollutants on ecosystems and human health.
27. Explain different classifications of entrepreneurs.

(2 × 10 = 20 marks)

D 103011 **(Pages : 2)** **Name.....**

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2024

Common Course—(Language Reduced Pattern)

A13—ENTREPRENEURSHIP AND ENVIRONMENTAL SCIENCE

(2019 Admission onwards)

Time : Two Hours and a Half Maximum : 80 Marks

Section A (Short Answers)

Answer questions up to 25 *marks.*
Each question carries 2 *marks.*
(ceiling 25 *marks)*

1. What do you mean by induced entrepreneur ?
2. Define the term entrepreneurship.
3. What are the causes of land pollution ?
4. Expand the organisation name KINFRA.
5. Who is an agripreneur ?
6. Who is a business entrepreneur ?
7. Write any *two* features of an entrepreneur.
8. What is gravitational settling chamber ?
9. Write any *two* causes of air pollution.
10. What do you mean by layout of a plant ?
11. How entrepreneurs perform their role as a promoter of exports ?
12. What do you mean by designing of a capital structure ?
13. Write any *two* remedial measures to prevent industrial pollution.
14. What is Absorption ?
15. What is Eutrophication ?

Turn over

Section B (Paragraph)

Answer questions up to 35 *marks.*
Each question carries 5 *marks.*
(ceiling 35 *marks)*

16. What are the standards for potable water ?
17. Distinguish between commercial entrepreneurs and social entrepreneurs.
18. How can pollution be controlled by sustainability ?
19. What are the causes of water pollution ?
20. Explain different levels for the prevention of air pollution.
21. Explain different venture initiation and success competencies of an entrepreneur.
22. Discuss the secondary treatment of water.
23. Distinguish between Entrepreneur and Intrapreneur.

Section C (Essay)

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Explain the role, functions and services of KITCO.
25. Write elaborately starting of MSME.
26. Explain different entrepreneurial functions of an entrepreneur.
27. Explain the need for effluent treatment and toxicity control.

(2 × 10 = 20 marks)

C 3928 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE (L.R.P.) EXAMINATION, APRIL 2016

(CUCBCSS—UG)

Common Course

A 14—NUTRITION AND HEALTH

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *the questions.*
Each question carries 1 *mark.*

Multiple choice

1. Glucose belongs to ————.
   (a) Polysaccharide. (b) Disaccharide.
   (c) Monosaccharide. (d) Oligosaccharide.
2. Starch belongs to ————.
   (a) Polysaccharide. (b) Disaccharide.
   (c) Monosaccharide. (d) Oligosaccharide.
3. Deficiency of Vitamin A leads to ————.
   (a) Night blindness. (b) Skin Rashes.
   (c) Scurvy. (d) Impairs clotting of blood.
4. Deficiency of thiamine leads to ————.
   (a) Beriberi. (b) Sour throat.
   (c) Pellagra. (d) Goitre.
5. The linkage between two amino acids ————.
6. What is the energy value of fat ?
7. Name the major milk protein.
8. Cellulose cannot be digested in human intestine because ————.
9. Palmitic acid is ———— fatty acid.
10. Linolenic acid is ———— fatty acid

(10 × 1 = 10 marks)

Part B

Answer any **five** *questions.*
Each question carries **2** *marks.*

1. Define nutrition.
2. Describe social health
3. What is MUFA and give *one* example ?
4. Write briefly about lipids classification.
5. What is polyunsaturated fatty acid and give *one* example ?
6. Provide brief details of protein sources.
7. Define calorie.

(5 × 2 = 10 marks)

Part C

Answer any **six** *questions.*
Each question carries **5** *marks.*

1. Classify the carbohydrates and give *one* example each.
2. Write a note on digestion and absorption of carbohydrates.
3. Describe in detail on evaluation of protein quality.
4. What are the sources and functions of carbohydrates ?
5. Write a note on the role of iodine in the diet.
6. Explain the sources and functions of iron and effects of its deficiency.
7. Explain the sources and functions of iodine and effects of its deficiency
8. What are the functions of proteins ?

(6 × 5 = 30 marks)

Part D

Answer any **two** *questions.*
Each question carries **15** *marks.*

1. Explain the role of any *three* minerals in human nutrition.
2. Describe the role of lipids in health and nutrition with reference to digestion, absorption, transportation and utilisation.
3. Describe in detail about the basic food groups and their functions.
4. Describe the sources and functions of iron as well as absorption and factors affecting its utilization along with effects of its deficiency.

(2 × 15 = 30 marks)

D 41954

(Pages : 3)

Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. (L.R.P.) DEGREE EXAMINATION, APRIL 2018

(CUCBCSS—UG)

Common Course

A 14—NUTRITION AND HEALTH

Time : Three Hours

Maximum : 80 Marks

Part A

I. Answer *all* the questions :

1 ——— is an example of polysaccharide.

(a) insulin. (b) starch.

(c) glucose. (d) fructose.

2 ——— is the good source of protein.

(a) milk. (b) meat.

(c) corn. (d) banana.

3 About ——— % of the body weight is water.

(a) 40–50. (b) 60–70.

(c) 20–30. (d) 100.

4 ——— is called fruit sugar.

(a) Sucrose. (b) Fructose.

(c) Glucose. (d) Mannose.

5 In lipids, fatty acids are linked to ——— molecule.

(a) Glycerol. (b) Amino acids.

(c) Glycine. (d) Glutamic acid.

6 ——— is the manomer of starch.

(a) Amylose. (b) Amylopectin.

(c) Glucose. (d) Fructose.

7 ——— is an antioxidant vitamin.

(a) Vitamin E. (b) Vitamin K.

(c) Vitamin A. (d) Vitamin B1.

8 Milk is rich in ——— mineral.

(a) Iron. (b) Calcium.

(c) Iodine. (d) Magnesium.

9 ——— is an example for monounsaturated fatty acid.

(a) Linoleic acid. (b) Oleic acid.

(c) Linolenic acid. (d) Stearic acid.

10 ——— is a co-enzyme in transaminases.

(a) Ascorbic acid. (b) Pyridoxin.

(c) Vitamin A. (d) Vitamin K.

(10 × 1 = 10 marks)

Part B

II. Answer any *five* questions :

11 What is lipid ? Write different types of lipids.

12 Write four factors affecting BMR.

13 Write sources of Vitamin A and Vitamin C.

14 What is water balance ? Write the water requirement for humans per day.

15 Name essential amino acids.

16 Define fibre. Write on classification of fibre with examples.

17 Elucidate on deficiency of iron.

(5 × 2 = 10 marks)

Part C

III. Answer any *six* questions :

18 Write briefly on role of sodium and potassium on water balance.

19 Elucidate food group systems along with main nutrients supplied by each group.

20 Give a brief account on the clinical signs and symptoms of kwashiorkor.

21 Discuss on protein digestion.

22 Write a short note on fluorosis.

23 What is under nutrition ? Discuss its effects on physical and clinical parameters of the body.

24 How do you determine the biological value of protein ?

25 Write sources of iodine. Give a brief account on iodine deficiency.

(6 × 5 = 30 marks)

Part D

IV. Answer any *two* questions :

26 (a) Discuss on classification of carbohydrates with examples.

(b) Write on digestion of carbohydrates.

27 (a) Write on the following diseases : (i) Scurvy ; (ii) Beriberi ; (iii) Keratomalacia.

(b) Discuss dietary approaches to treat the above diseases.

28 (a) Discuss on role of copper on human nutrition.

(b) Give dietary sources of copper.

29 (a) Explain the energy needs of the body.

(b) Discuss on the determination of energy value of foods using Bomb Calorimeter.

(2 × 15 = 30 marks)

C 61210 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2019

(CUCBCSS—UG)

Common Course for L.R.P.

A014—NUTRITION AND HEALTH

(2014 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *the questions.*
Each question carries 1 *mark.*

Multiple choice :

1. Galactose belongs to ———.

   (a) Polysaccharide. (b) Disaccharide.

   (c) Monosaccharide. (d) Oligosaccharide.

2. Deficiency of Vitamin D leads to ———.

   (a) Night blindness. (b) Skin Rashes.

   (c) Scurvy. (d) Impairs clotting of blood.

3. Deficiency of Vitamin K leads to ———.

   (a) Night blindness. (b) Skin Rashes.

   (c) Scurvy. (d) Impairs clotting of blood.

4. Deficiency of riboflavin leads to ———.

   (a) Beriberi. (b) Sour throat.

   (c) Pellagra. (d) Goitre.

Fill in the blanks :

5. MUFA stands for ———.

6. One calorie is equal to ——— joules.

Turn over

7. Linoleic acid is ——— fatty acid.

8. The linkage between two aminoacids is called as ———.

Give very short answer :

9. What is the energy value of carbohydrate ?

10. Give one example of essential amino acid.

(10 × 1 = 10 marks)

Part B

Answer any **five** *questions.*

Each question carries 2 *marks.*

1. Describe under nutrition.

2. Explain mental health.

3. What are essential aminoacids ? Give one example.

4. Write briefly about protein classification.

5. What is saturated fatty acid and give one example.

6. Provide brief details of sources of lipids.

7. What are basic food groups ?

(5 × 2 = 10 marks)

Part C

Answer any **six** *questions.*

Each question carries 5 marks.

1. Classify the lipids and give one example each.

2. Write a note on digestion and absorption of lipids.

3. Write a note on the water balance in human body.

4. What are the sources and functions of lipids ?

5. Write a note on the BMR.

6. Describe the sources and functions of phosphorous and effects of its deficiency.

7. Explain the sources and functions of flouride and effects of its deficiency.
8. Explain the relation of good nutrition to normal physical development and sound health.

(6 × 5 = 30 marks)

Part D

Answer any **two** *questions.*
Each question carries 15 *marks.*

1. Explain the role of fat soluble vitamins in human body and provide any four deficiency diseases.
2. Write in detail about the energy needs of body and measurement of energy balance of body.
3. Describe the role of proteins in health and nutrition with reference to digestion, absorption, transportation and utilisation.
4. Describe the sources and functions of fluoride as well as absorption and factors affecting its utilization along with effects of its deficiency.

(2 × 15 = 30 marks)

C 80845 (Pages : 4) Name.....

Reg. No.....

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION APRIL 2020

Common Course

A 14—NUTRITION AND HEALTH

(2014 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

I. Answer *all* the questions. Each question carries 1 mark :

1 With respect to water distribution in tissues, maximum amount of water is present in ————.

(a) Extracellular. (b) Plasma.

(c) Intracellular. (d) Lymph.

2 ———— is not digested by digestive system.

(a) Gums. (b) Sucrose.

(c) Amylose. (d) Amylopectin.

3 ———— is the essential amino acid.

(a) Glycine. (b) Glutamine.

(c) Lysine. (d) Alanine.

4 ———— is the enzyme that digests lipids.

(a) Papain. (b) Proline.

(c) Amylase. (d) Lipase.

5 The following has the Calorific value of 4.0 kcal/g.

(a) Carbohydrate. (b) Fat.

(c) Dietary fibre. (d) Vitamins.

6 Kwashiorkor is caused due to the deficiency of ——— nutrient in the diet.

(a) Vitamins. (b) Carbohydrate.

(c) Fat. (d) Protein.

7 ——— vitamin has an important function to increase immune function of the body.

(a) Vitamin A. (b) Vitamin B.

(c) Vitamin C. (d) Vitamin D.

8 Fruits and vegetables are good source of ——— nutrient.

(a) Protein. (b) Fat.

(c) Vitamins. (d) Cholesterol.

9 One of the functions of minerals is :

(a) To give energy source. (b) Co-factor of enzymes.

(c) To increase body weight. (d) Insulate the organ.

10 ——— the major disaccharide in milk.

(a) Glucose. (b) Fructose.

(c) Lactose. (d) Starch.

(10 × 1 = 10 marks)

Part B

II. Answer only *five* questions. Each question carries 2 marks :

1 Name five food groups with examples.

2 Write a short note on protein energy malnutrition.

3 Elucidate the energy requirement during pregnancy and lactation as per FAO/WHO.

4 Write a short note on the deficiency of carbohydrates.

5 How water is distributed in different body tissues ?

6 Give a brief account on requirement of fat.

7 Write briefly on factors that increase the vitamin bioavailability.

(5 × 2 = 10 marks)

Part C

III. Answer any *six* questions. Each question carries 5 marks :

1 Explain briefly on specific dynamic action of foods.

2 Define calorie. Compute the calorific values of cereals and pulses.

3 Write the importance of water in human nutrition.

4 Give a brief account on digestion of carbohydrates.

5 Discuss on simple proteins with examples.

6 Write the functions of calcium

7 Expand PUFA and give two examples ? Write briefly on their importance in human nutrition.

8 (a) What is dietary fiber ? Give example for dietary fibre.

(b) Give the nutritional importance of soluble dietary fibre.

(6 × 5 = 30 marks)

Part D

IV. Answer only *two* questions. Each question carries 15 marks :

1 Discus on the following aspects :

(a) Energy requirement of infants as per the FAO/WHO guidelines.

(b) Factors affecting basal metabolism.

2 (a) Group the vitamins based on their solubility.

(b) Discuss on *Vitamin A* under the following aspects :

(i) Dietary sources.

(ii) Requirement.

(iii) Diseases caused due to deficiency.

3 Discuss on *iron* under the following heads :

(a) Sources.

(b) Functions.

(c) Factors affecting the absorption.

4 Discuss on *water* under the following heads :

(a) Importance.

(b) Sources.

(c) Functions.

(d) Water balance.

(2 × 15 = 30 marks)

C 3494 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION, APRIL 2021

Common Course

A 14—NUTRITION AND HEALTH

Time : Two Hours and a Half Maximum : 80 Marks

Section A

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. What is social and mental health ?
2. Define Malnutrition.
3. What is calorific value of food ?
4. Briefly describe basic five food group.
5. List any four sources of insoluble fibre.
6. What are the enzymes involved in disaccharide and polysaccharide digestion ?
7. Define PER.
8. Define limiting amino acid.
9. What are ketone bodies ?
10. Classify lipids based on function.
11. Enlist iodine deficiency diseases.
12. Discuss 3'D's of pellagra.
13. What is megaloblastic anemia ?
14. What is hypercalcemia ?
15. Discuss the distribution of water in body.

(10 × 3 = 30 marks)

Section B

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. What is RDA ? What are the factors affecting RDA ?
17. Briefly explain bomb calorimeter with a suitable diagram.

Turn over

18. Explain the role of fibre in human nutrition.

19. Write a short note on essential amino acids.

20. Distinguish the characteristics of animal and vegetable fats.

21. Explain the genesis and destruction of RBC.

22. Explain in brief the functions of water in body.

23. Briefly explain the role of retinol in visual cycle.

(5 × 6 = 30 marks)

Section C

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. What is BMR ? Explain in detail the factors affecting BMR.

25. Explain in detail the functions of protein in body.

26. What is PUFA ? Discuss the effect of diet low in PUFA in detail.

27. Explain in detail the role of thiamine in TCA cycle and hexose monophosphate shunt pathway.

(2 × 10 = 20 marks)

C 21496 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION APRIL 2022

Common Course for L.R.P. (Language Reduced Pattern)

A 14—NUTRITION AND HEALTH

Time : Two Hours and a Half Maximum : 80 Marks

Section A

Answer at least **ten** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 30.

1. Give WHO's definition for health.
2. What is nutritional status ?
3. Define BMR.
4. Briefly describe food guide pyramid.
5. What is dietary fibre ?
6. What is gylcemic index and glycemic load ?
7. Enlist the enzymes involved in protein digestion.
8. How does animal protein differ from plant protein ?
9. What is invisible fat ? Give one example.
10. Listany *two* sources of omega-3 and omega-6 fatty acids.
11. What is microcytic anaemia ?
12. What is light adaptation ?
13. What is osteomalacia and osteoporosis ?
14. What is food fortification ?
15. What is water balance ?

(10 × 3 = 30 marks)

Turn over

Section B

Answer at least **five** *questions.*
Each question carries 6 *marks.*
All questions can be attended.
Overall Ceiling 30.

16. Briefly explain reference man and reference woman.
17. Explain physiological fuel value.
18. Explain classification of polysaccharide in brief.
19. Classify protein according to its chemical composition.
20. Write a short note on the functions of essential fatty acids.
21. Explain the role of calcium in blood clotting.
22. Write a short note on distribution of water in body.
23. Discuss on the risk factors of rickets in human.

(5 × 6 = 30 marks)

Section C

Answer any **two** *questions.*
Each question carries 10 *marks.*

24. Explain in detail the functions of carbohydrates in body.
25. Discuss Protein Energy Malnutrition in detail.
26. Explain briefly the digestion, absorption and transportation of fat in body.
27. Explain the deficiency conditions of Vitamin A.

(2 × 10 = 20 marks)

C 41175 **(Pages : 2)** **Name.....**

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2023

Common Course (Language Reduced Pattern)

A14—NUTRITION AND HEALTH

(2019 Admission onwards)

Time : Two Hours and a Half Maximum : 80 Marks

A. Short Answer :

1 What is Nutritional care ?

2 Define the term functional foods.

3 What is Partially incomplete protein.

4 What is Trehalose ?

5 What are the symptoms of poor nutritional status ?

6 How food regulates the activities of body.

7 What is slowly digestible starch ?

8 What are essential fatty acids ?

9 What are ways and quantity in which water is wasted daily from our body ?

10 Define Joule.

11 What is Palatability ?

12 What is Harris-Benedict equation for determination of BMR ?

13 What is Bito's spot ?

14 What is ergo calciferol ?

15 How Vitamin D linked with corona virus ?

B. Write in Paragraph :

16 What are the functions of dietary fibre in human body.

17 Explain classification of protein with example.

Turn over

18 Explain about free sugars.

19 What are the functions of Niacin ?

20 Explain the equipment used in Direct and Indirect Calorimeter.

21 Explain Osteomalacia and its risk factors among adults.

22 Explain basic food groups with example.

23 What are the dietary sources of ascorbic acid ?

C. Essay :

24 Discuss the relationship between fat and heart ailments. What are the suggested ways to prevent heart ailments ?

25 Describe Bomb Calorimeter in determination of energy value of food.

26 Explain the deficiency symptoms of Vitamin A in detail.

27 Describe the functions of water in human body.

D 103006 **(Pages : 2)** **Name.....**

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2024

Common Course—(Language Reduced Pattern)

A14—NUTRITION AND HEALTH

(2019 Admission onwards)

Time : Two Hours and a Half Maximum : 80 Marks

Part A

1. What do you mean by determinants of health ?
2. State the common four types of undernutrition.
3. What do you mean by basal metabolism rate ?
4. What is meant by nutrient ?
5. Define food group.
6. Write the main source of energy in the body.
7. What is ABCD method in reference to nutritional status assessment ?
8. What is 'Antivitamin' ?
9. Define NPU.
10. State the difference between homopolysaccharide and heteropolysaccharide.
11. Mention the function of glycogen.
12. State the role of amylase indigestion.
13. Do we need fluoride in our bodies ?
14. Name any *two* acidic amino acid.
15. What are the symptom's of copper deficiency ?

(Ceiling 25 marks)

Turn over

Part B

Each question carries 5 *marks.*

16. Write down the dietary sources and physiological role of Vitamin A.

(2 + 3 = 5 marks)

17. Point out the properties of amino acids.

18. Compare hypothyroidism and hyperthyroidism.

19. Classify carbohydrate based upon hydrolysis.

20. Write a short note on protein quality indicator.

21. Importance of folic acid in pregnancy outcome.

22. Enlist the role of iodine in human body.

23. What are the functions of water in our bodies ?

(Ceiling 35 marks)

Part C

Each question carries 10 *marks.*

24. Discuss the classification of protein based on biological functions.

25. What is PEM ? Write down the clinical sign and symptoms of Kwashiorkor and Marasmus.

(2 + 4 + 4 = 10 marks)

26. Give a description on different dimensions of health.

27. How many different kinds of fats are there ? Write a brief note on those types of fat.

[1 + (2 + 5 + 2) = 10 marks]

(Maximum = 20 marks)

C 23289 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. (L.R.P.) DEGREE EXAMINATION, APRIL 2017

(CUCBCSS—UG)

Common Course

A14—NUTRITION AND HEALTH

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *the questions.*

Multiple Choice :

1 Sucrose belongs to ————————.

(a) Polysaccharide. (b) Disaccharide.

(c) Monosaccharide. (d) Oligosaccharide.

2 Nutrition includes the study of ————————.

(a) The way an organism obtains food.

(b) Process of digestion.

(c) The organism's food.

(d) All of the above.

3 Deficiency of Vitamin C leads to ————————.

(a) Night blindness. (b) Skin Rashes.

(c) Scurvy. (d) Impairs clotting of blood.

4 Deficiency of niacin leads to ————————.

(a) Beriberi. (b) Sour throat.

(c) Pellagra. (d) Goitre.

5 Deficiency of iodine leads to ————————.

(a) Beriberi. (b) Sour throat.

(c) Pellagra. (d) Goitre.

Fill in the blanks :

6 PUFA stands for ——————.

7 The linkage between fatty acid and glycerol ——————.

8 Oleic acid is —————— fatty acid

Give very short answer :

9 Give one example of essential amino acid.

10 What is the energy value of protein ?

(10 × 1 = 10 marks)

Part B

Answer any **five** *questions.*

11 Define malnutrition.

12 Define physical health.

13 Write briefly about water classification.

14 Two important factors affecting BMR.

15 What is monounsaturated fatty acid and give one example.

16 Provide brief details of sources of carbohydrates.

17 Define basal metabolism.

(5 × 2 = 10 marks)

Part C

Answer any **six** *questions.*

18 Classify the proteins and give one example each.

19 Explain specific dynamic actions of food.

20 Write a note on digestion and absorption of proteins.

21 What are the sources and functions of proteins ?

22 Write a note on the dietary fibre.

23 Explain the sources and functions of calcium and effects of its deficiency.

24 Discuss the sources and functions of copper and effects of its deficiency.

25 Write the names of digestive enzymes present in gastrointestinal tract.

(2 × 15 = 30 marks)

Part D

Answer any **two** *questions.*

26 Explain the role of water soluble vitamins in human body and provide any four deficiency diseases.

27 Nutrients are important to human health - explain in detail.

28 Describe the role of carbohydrates in health and nutrition with reference to digestion, absorption, transportation and utilisation.

29 Describe the sources and functions of iodine as well as absorption and factors affecting its utilization along with effects of its deficiency.

(2 × 15 = 30 marks)

C 25577 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER B.Com./B.B.A. DEGREE (SUPPLEMENTARY) EXAMINATION, APRIL 2017

(UG–CCSS)

Common Course

A 14—ENTREPRENEURSHIP DEVELOPMENT

Time : Three Hours Maximum : 30 Weightage

Part A

This part consists of three bunches of questions carrying equal weightage.
Each bunch has four questions.
Attempt all **twelve** *questions.*

A. Fill in the blanks :

1. A ——— looks at determining whether the project idea is a realistic or not.
2. The initial capital used to start a business is called ———.
3. The NPV approach recommends a project if the difference between the present value of cash inflows and the initial investment is ———.
4. ——— has been established as the apex institution for financing the MSME.

B. Choose the correct answer from the alternatives given :

5. Which is an economic factor that affects entrepreneurship ?

   (a) Raw materials. (b) Innovation.

   (c) Government policies. (d) Mobility.

6. A person owning and running a small firm, is known as :

   (a) A manager-owner. (b) An owner-manager.

   (c) A professional adapter. (d) An enterprise worker.

7. The payback period of three projects A, B and C are 5 years, 3 years and 7 years respectively. Its ranking would be :

   (a) A, B and C. (b) B, C and A.

   (c) A, C and B. (d) B, A and C.

Turn over

8. A micro manufacturing enterprise's investment in plant and machinery should be up to :

(a) 10 lakhs rupees. (b) 25 lakhs rupees.

(c) 50 lakhs rupees. (d) 60 lakhs rupees.

C. Answer in *one word* :

9. Imitative entrepreneurs are also called :

10. The cash equivalent now of a sum receivable at a later date is called :

11. The first stage in the project cycle is :

12. The excess of the maximum available time over the activity duration is termed as :

(12 × ¼ = 3 weightage)

Part B

Answer all **nine** *questions in one* **or two** *sentences each.*
Each question carries a weightage of 1.

13. Define a project report.

14. What are the functions of entrepreneur ?

15. What is a payback period ?

16. What is project management ?

17. What is cash flow analysis ?

18. What is Working Capital ?

19. What is Intrapreneurship ?

20. Who is a Drone entrepreneur ?

21. Write a short note on SIDO.

(9 × 1 = 9 weightage)

Part C

Answer any **five** *questions.*
Each answer not to exceed **one page.**
Each question carries a weightage of 2.

22. What is break-even analysis ? State its merits.

23. What are the remedies to solve the problems of women entrepreneurs ?

24. What are Industrial estates ? State its advantages.

25. State the functions of SIDBI.

26. What is a project cycle ? Explain the different phases of a project cycle.

27. "An entrepreneur has to obtain several clearances or permissions before starting MSME"—What are they ?

28. Describe the steps in Project Management.

(5 × 2 = 10 weightage)

Part D (Essay type)

Attempt any **two** *questions.*
Each question carries a weightage of 4.

29. Economic development is the effect for which entrepreneurship is a cause"—Do you agree ? Give reasons.

30. Explain the different types of project.

31. What are the different types of entrepreneurs ? Explain briefly the features of each type.

(2 × 4 = 8 weightage)

C 23287 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. (L.R.P.) DEGREE EXAMINATION, APRIL 2017

(CUCBCSS—UG)

Common Course

A 13—ENTREPRENEURSHIP DEVELOPMENT

Time : Three Hours Maximum : 80 Marks

Part I

Answer **all** *questions.*
Each question carries 1 *mark.*

1. ——— applied the term entrepreneur to business for the first time.
   (a) Richard Cantillon. (b) Joseph Schumpeter.
   (c) A. H. Cole. (d) Clarence Danhof.
2. A small service enterprise is one in which the investment in plant and machinery does not exceed :
   (a) Rs. 2 crores. (b) Rs.1 crore.
   (c) Rs. 50 lakhs. (d) Rs. 25 lakhs.
3. According to Schumpeter, Is the most important function of a modern entrepreneur ?
   (a) Innovation. (b) Invention.
   (c) Skill. (d) Creativity.
4. Person who works within an organization and having entrepreneurial capabilities is :
   (a) Entrepreneur. (b) Intrapreneur.
   (c) Promoters. (d) None of these.
5. The MSME Development Act came into force in the year ———.
   (a) 2006. (b) 2005.
   (c) 2007. (d) None of these.
6. ——— is the first phase in the life cycle of a project.
7. ——— entrepreneurs neither introduce new changes nor adopt new methods innovated by others.
8. PERT means ———.
9. DIC means ———.
10. KITCO means ———.

(10 × 1 = 10 marks)

Turn over

Part II (Short Answer Questions)

Answer any **eight** *questions.*
Each question carries 2 *marks.*

11. Define entrepreneur.
12. What is techno-economic analysis ?
13. What is pay back method ?
14. What is working capital ?
15. What is project appraisal ?
16. What do you mean by business incubation ?
17. What do you mean by 'copreneurs' ?
18. Define women entrepreneurship.
19. What is "Subsidy" ?
20. Discuss any *four* functions of DIC.

(8 × 2 = 16 marks)

Part III (Short Essays)

Answer any **six** *questions.*
Each question carries 4 *marks.*

21. What are the characteristics of an entrepreneur ?
22. What are the objectives of network analysis ?
23. What are the problems faced by MSME in India ?
24. What is project management ?
25. What are the advantages of incentives and subsidies ?
26. What are the functions of KINFRA ?
27. What are the elements of project formulation ?
28. State the objectives and importance of ED Clubs in Kerala.

(6 × 4 = 24 marks)

Part IV (Long Essays)

Answer any **two** *questions.*
Each question carries 15 *marks.*

29. What are the factors affecting entrepreneurial growth ?
30. Define a project report. What are the contents required for a good project report ?
31. Define MSME ? Discuss the role and importance of MSME in developing countries.

(2 × 15 = 30 marks)

C 23287 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. (L.R.P.) DEGREE EXAMINATION, APRIL 2017

(CUCBCSS—UG)

Common Course

A 13—ENTREPRENEURSHIP DEVELOPMENT

Time : Three Hours Maximum : 80 Marks

Part I

Answer **all** *questions.*
Each question carries 1 *mark.*

1. ——— applied the term entrepreneur to business for the first time.
   (a) Richard Cantillon. (b) Joseph Schumpeter.
   (c) A. H. Cole. (d) Clarence Danhof.
2. A small service enterprise is one in which the investment in plant and machinery does not exceed :
   (a) Rs. 2 crores. (b) Rs.1 crore.
   (c) Rs. 50 lakhs. (d) Rs. 25 lakhs.
3. According to Schumpeter, Is the most important function of a modern entrepreneur ?
   (a) Innovation. (b) Invention.
   (c) Skill. (d) Creativity.
4. Person who works within an organization and having entrepreneurial capabilities is :
   (a) Entrepreneur. (b) Intrapreneur.
   (c) Promoters. (d) None of these.
5. The MSME Development Act came into force in the year ———.
   (a) 2006. (b) 2005.
   (c) 2007. (d) None of these.
6. ——— is the first phase in the life cycle of a project.
7. ——— entrepreneurs neither introduce new changes nor adopt new methods innovated by others.
8. PERT means ———.
9. DIC means ———.
10. KITCO means ———.

(10 × 1 = 10 marks)

Turn over

Part II (Short Answer Questions)

Answer any **eight** *questions.*
Each question carries 2 *marks.*

11. Define entrepreneur.
12. What is techno-economic analysis ?
13. What is pay back method ?
14. What is working capital ?
15. What is project appraisal ?
16. What do you mean by business incubation ?
17. What do you mean by 'copreneurs' ?
18. Define women entrepreneurship.
19. What is "Subsidy" ?
20. Discuss any *four* functions of DIC.

(8 × 2 = 16 marks)

Part III (Short Essays)

Answer any **six** *questions.*
Each question carries 4 *marks.*

21. What are the characteristics of an entrepreneur ?
22. What are the objectives of network analysis ?
23. What are the problems faced by MSME in India ?
24. What is project management ?
25. What are the advantages of incentives and subsidies ?
26. What are the functions of KINFRA ?
27. What are the elements of project formulation ?
28. State the objectives and importance of ED Clubs in Kerala.

(6 × 4 = 24 marks)

Part IV (Long Essays)

Answer any **two** *questions.*
Each question carries 15 *marks.*

29. What are the factors affecting entrepreneurial growth ?
30. Define a project report. What are the contents required for a good project report ?
31. Define MSME ? Discuss the role and importance of MSME in developing countries.

(2 × 15 = 30 marks)

C 5106 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER B.Com./B.B.A. DEGREE (SUPPLEMENTARY/ IMPROVEMENT) EXAMINATION, MAY 2016

(UG—CCSS)

Common Course

A 14—ENTREPRENEURSHIP DEVELOPMENT

Time : Three Hours Maximum : 30 weightage

Part A

This part consist of **three** *bundles of questions carrying equal weightage.*
Each bunch has **four** *questions.*
Answer all **twelve** *questions.*

I. Fill in the blanks by choosing the appropriate word from those given in the brackets :

1 Introducing something new to the economy is called :

(a) Entrepreneurship. (b) Risk bearing.

(c) Innovation. (d) Organising.

2 An entrepreneur who starts business with the help of natural talent is called :

(a) Pure entrepreneur. (b) Induced entrepreneur.

(c) Spontaneous entrepreneur. (d) Motivated entrepreneur.

3 Under the payback period we select the project which has the :

(a) Shortest period. (b) Longest period.

(c) Medium period. (d) Two year period.

4 Clearance given for small scale enterprises to promote the growth is :

(a) Green Channel. (b) Value added tax.

(c) Critical path method. (d) Net worth.

II. Choose the correct answer :

5 The first stage of project cycle is :

(a) Project evaluation. (b) Project identification.

(c) Project appraisal. (d) Project preparation.

Turn over

6 MSME development institute was formally known as :

(a) SIDBI. (b) SISI.

(c) SIDCO. (d) SJSRY.

7 The MSME Development Act was introduced in :

(a) 2006. (b) 2005.

(c) 2008. (d) 2007.

8 Which method is also known as Benefit cost ratio method ?

(a) Average Rate of Return. (b) Present value Index method.

(c) Discounted cash flow method. (d) Net present value method.

III. Answer in *one word* :

9 No profit no loss is denoted by :

10 The term 'entrepreneur' was first introduced by :

11 The initial capital used to start a business is called :

12 Minimum amount of capital required for carrying out day to day operations of an enterprise is referred to as :

(12 × ¼ = 3 weightage)

Part B

Answer all **nine** *questions.*
Each question carries a weightage of 1.

13 Explain innovative entrepreneur.

14 What is achievement motivation ?

15 What is desk research ?

16 State the objectives of network analysis.

17 What is target group ?

18 What is a quantifiable project ?

19 What is bridge finance ?

20 What is NIESBUD ?

21 Define entrepreneur.

(9 × 1 = 9 weightage)

Part C

Answer any **five** *questions.*
Each question carries a weightage of 2.

22 Explain features of a project.

23 State the difference between entrepreneur and Intrapreneur.

24 What are the functions of DICs ?

25 Describe PLC.

26 What are the reasons for industrial sickness ?

27 What are the sources of project idea ?

28 State the difference between PERT and CPM.

(5 × 2 = 10 weightage)

Part D

Answer any **two** *questions,.*
Each question carries a weightage of 4.

29 What is project formulation ? What are the elements involved in it ?

30 Describe the steps involved in setting up MSME.

31 What is the role of entrepreneur in economic development ?

(2 × 4 = 8 weightage)

C 81791 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER B.Com./B.B.A. DEGREE EXAMINATION MARCH/APRIL 2015

(U.G.–CCSS)

Common Course

A14—ENTREPRENEURSHIP DEVELOPMENT

Time : Three Hours Maximum : 30 Weightage

Part A

This part contains three bunches of questions carrying equal weightage.
Each bunch has four questions.
Answer all the **twelve** *questions.*

A. Fill up the blanks :

1 The scheme of E.D. club is implemented by ————————.

2 ———————— is the difference between present value of cash inflows and present value of cash outflows.

3 Under ———————— layout system men and equipments are moved to the material which remains in one place.

4 ———————— entrepreneurs are those who refuse to adopt and use opportunities to make changes in production.

B. Choose the correct answer from brackets :

5 The ability to develop new ideas, concepts and process is known as :

(a) Performance. (b) Invention.

(c) Innovation. (d) Skill.

6 Single window scheme is instituted through :

(a) SIDCO. (b) KSFE.

(c) DIC. (d) SBT.

7 Which of the following is not a technique of financial analysis ?

(a) Ratio analysis. (b) Cash flow analysis.

(c) Risk analysis. (d) Fund flow analysis.

8 It is one of the sunrise industries of Kerala State :

(a) Food processing. (b) Transport.

(c) Mining. (d) Handloom.

Turn over

C. Answer in *one word* :

9 Women who organise, manage, and assumes the risk of a business are called as :

10 Couples who work together as co-owners of their business are termed as :

11 The point at which total cost equals the total revenue (sales) is technically termed as :

12 Kerala Industrial Infrastructure Development Corporation is abbreviated as :

(12 × ¼ = 3 weightage)

Part B

Answer all **nine** *questions in* **one** *or* **two** *sentences each.*
Each question carries a weightage of 1.

13 Differentiate between Entrepreneur and Entrepreneurship.

14 What are the chief characteristics of an entrepreneur ?

15 What is MSME ?

16 What are Industrial Estates ?

17 What are Tax holidays ?

18 What is meant by Bridge capital ?

19 Give any two important functions of KFC.

20 State the meaning of feasibility study.

21 What is meant by combined layout ?

(9 × 1 = 9 weightage)

Part C

Answer any **five** *questions.*
Answers not to exceed **one page.**
Each question carries a weightage of 2.

22 What is meant by network analysis ? Discuss the importance of network technique in project management.

23 What are the major sources of Project Finance ? Explain briefly.

24 What is pay-back period ? List the merits and demerits of pay-back method.

25 Explain briefly the incentives and supports offered by Government of Kerala for promoting entrepreneurial development.

26 What are the skills required by entrepreneurs ? How are they developed ?

27 Discuss the problems faced by women entrepreneurs.

28 Explain the functions performed by DIC.

(5 × 2 = 10 weightage)

Part D

Answer any **two** *questions.*
Each question carries a weightage of 4.

29 **Define Entrepreneur. Explain the different types of entrepreneurs.**

30 **Define project report. What is its importance ? Enumerate the contents of a project report.**

31 **Explain briefly the procedure of setting up a small scale industrial unit.**

(2 × 4 = 8 weightage)

C 62045 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, MAY 2014

(UG-CCSS)

Chemistry—Core Course

CH 4B 07—ORGANIC CHEMISTRY—I

Time : Three Hours Maximum Weightage : 30

I. Multiple choice and fill in the blanks type questions. Answer all *twelve* questions :

1 Wurtz reaction involves the use of ————

(a) Sodium. (b) Magnesium.

(c) Palladium. (d) Tin.

2 Which among the following is an addition polymer ?

(a) PMMA. **(b) PVC.**

(c) PTEE. **(d) All the above.**

3 For a cyclic conjugated system to be aromatic, it should have _____ electrons :

(a) 6. (b) 10.

(c) 14. (d) All of the above.

4 Reaction of propyne with dilute H_2SO_4 in presence of $HgSO_4$ gives _____

(a) Acetaldehyde. (b) Acetone.

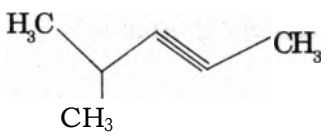
Propanal. (d) None of the above.

5 A reagent for hydrogenation of alkenes is _____

6 Wurtz reaction converts _____ to an alkane.

7 The hybridisation of a carbon in cyclohexane is _____

8 The IUPAC name the following organic compound is _____



9 The reagent used for the conversion of benzyl chloride to benzoic acid is ————

Turn over

10 The most stable conformation of ethane is the _____ conformation.

11 The configuration of L-erythrose can be drawn as _____

12 Deficiency of Vitamin A can cause _____

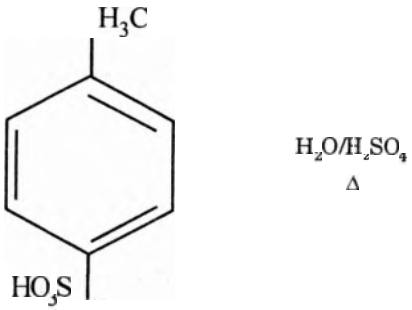
(12 x ¼ = 3 weightage)

II. Short answer type questions. Answer all *nine* questions :

13 Explain Kolbe's reaction ?

14 Rearrange the following in the decreasing order of strain. Cyclobutane, Cyclohexane, Cyclopropane, Cyclopentane.

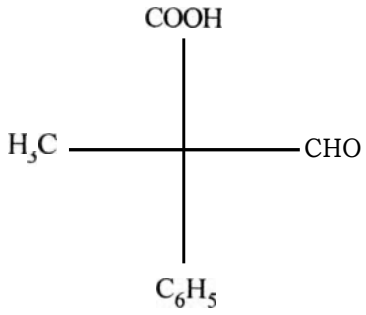
15 Complete the reaction



16 What are carbenes ?

17 Draw the structure of geraniol.

18 Assign the absolute configuration of the following molecule.



19 What is oxymercuration ?

20 Draw the most stable and least stable saw-horse formula of ethane.

21 Mention any *two* neutral nucleophiles.

(9 x 1= 9 weightage)

II. Short essays *or* paragraph questions. Answer any *five* questions :

22 Explain the hybridisation and shape of acetylene.

23 Comment on the stability of the conformations of cyclohexane.

24 Outline the mechanism of peroxide effect.

25 Explain the preparation and any *two* applications of polypropylene.

26 Give a brief note on the elements of symmetry and explain their importance.

27 Explain any *two* electron displacement effects in organic molecules citing examples.

28 How do you convert ethylene to ethanol using hydroboration ?

(5 x 2 = 10 weightage)

IV. Essay questions. Answer any *two* questions :

29 Write notes on methods of resolution and asymmetric synthesis.

30 Discuss the mechanisms of nitration and Friedal Craft reactions on benzene and Outline the orientation effect of bromine and OH group.

31 Discuss the structure, hybridisation and stability of carbocations and olefins.

(2 x 4 = 8 weightage)

C 5132 **(Pages : 3)** **Name**

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE [SUPPLEMENTARY/IMPROVEMENT] EXAMINATION, MAY 2016

(UG—CCSS)

Chemistry—Core Course

CH 4B 07—ORGANIC CHEMISTRY—I

Time : Three Hours Maximum : 30 Weightage

Write equations wherever necessary.

Section A

I. Multiple choice and fill in the blanks type questions. Answer *all* twelve questions. Each question carries a weightage of IA :

1 The bond angle between hybrid orbitals in ethylene molecule is :

(a) 180°. (b) 120°.

(c) 109.5°. (d) 104.5°.

2 Acetylene can react with

(a) $NaNH_2$. (b) HBr.

(c) $H_2SO_4 + HgSO_4$. **(d)** All these.

3 MarkowniKoff's addition of HBr is not applicable to :

(a) 2-Butene. (b) 1-Butene.

(c) 1-Pentene. (d) Propene.

4 The compound which exhibits optical isomerism is

(a) 2-Hydroxy propane. (b) 2-Chloropropane.

(c) 2-Chloropropanol. (d) All these.

5 The hydrocarbon obtained by the decarboxylation of sodium salt of propanoic acid is

6 The most stable conformation of cyclohexane is _____

7 Hydrogenation of 2-butyne in the presence of Lindlar catalyst gives _____

Turn over

8 The structure of carbanion is

9 The structure of the monomer of PMMA is

10 Optical isomers which are not mirror images of each other are known as

11 An example of ortho, para directing group is

12 Sulphonation of aromatic compounds is an example for

(12 x = 3 weightage)

Section 13

II. Short answer type questions. Answer all *nine* questions. Each question carries a weightage of 1.

13 What is Wurtz reaction ?

14 Why trans-2-butene is more stable than cis-2-butene ?

15 What is meant by peroxide effect ?

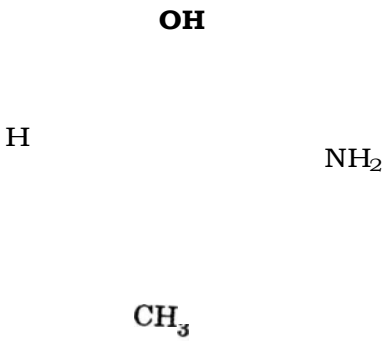
16 Draw the structure of citral.

17 What is meant by oxymercuration ? Give an example.

18 Draw the structures of geometrical isomers of 2-butene.

19 Draw the D and L forms of Threose.

20 Assign the absolute configuration (R or S) of the following molecule.



21 Give any *two* characteristics of diastereo isomers.

(9 x 1 = 9 weightage)

Section C

III. Short Essays *or* paragraph questions. Answer any *five* questions. Each question carries a weightage of 2 :

22 Explain the extra stability of propene by hyper conjugation.

23 What is the difference between inductive effect and electromeric effect ?

24 Why cyclobutane is more stable than cyclopropane ? Explain.

25 Give a short account of the reaction of hydrogen halide with an alkene.

26 Write a brief note on the different types of organic reagents.

27 Write a note on the optical activity of compounds having no asymmetric carbon atom.

28 Discuss the halogenation of benzene with mechanism.

(5 x 2 = 10 weightage)

Section D

IV. Essay questions. Answer any *two* questions. Each question carries a weightage of 4 :

29 What do you understand by the term 'conformation' ? Discuss it with reference to conformation of butane. Which conformation of butane is more stable ? Why ?

30 What are carbocations ? Give examples. Write a short note on the stability of carbocations.

31 (i) Discuss the molecular orbital structure of benzene.

(ii) Explain the mechanism of Friedel Crafts alkylation of benzene, point out **its** limitations.

(2 x **4 = 8** weightage)

C 3966 **(Pages : 2)** **Name**

Reg. No. . . . . .

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2016

(CUCBCSS–UG)

Core Course—Chemistry

CHE 4B 04—ORGANIC CHEMISTRY—I

Time : Three Hours **Maxi um : 80 Mks**

Section A (One Word)

Answer all questions.
Each question carries 1 mark.

1. Propanoic acid and Methylethanoate are ~~isomers.~~
2. Two adjacent members in a homologues series. differ by a ~~group.~~
3. Diethyl ether and Methylpropyl ether are _____
4. Out of Cis-2-butene and Trans-2-butene, the isomer having zero dipole moment is _____
5. Most stable conformation of Ethylene glycol is _____
6. Free radicals are generated by ~~of carbon- carbon~~ sigma bond.
7. When 2-Bromo-3-methyl butane is warmed with alcoholic KOH, the major product formed is _____
8. The final product formed when an alkene undergoes oxy mercuration followed by hydrolysis is _____
9. The product obtained when benzene is first sulphonated and then chlorinated is _____
10. The structure of 9-Bromoanthracene is _____

(10 x 1 = 10 marks)

Section B (Short Answers)

Answer any **ten** *questions.*
Each question carries **2** *marks.*

11. Draw the Sawhorse projection formulae for staggered and eclipsed forms of ethane.
12. Draw the structure of stereo isomers of the dicarboxylic acid having the molecular formula $C_4H_4O_4$.
13. Illustrate Keto-enol tautomerism using one example.
14. Draw any *two* stable conformations of Methylcyclohexane.
15. Draw the structures of enantiomers of Lactic acid.
16. Out of l-Butyne and 2-Butyne, which is acidic. Give one reaction to show their acidity.
17. Which is more acidic 2-Chlorobutanoic acid or 3-Chlorobutanoic acid. Justify your answer.
18. Which is having a large heat of hydrogenation, Cis-2-butene or Trans-2-butene ? Justify.

Turn over

19. Discuss the Haworth synthesis of Naphthalene.
20. How does 2-Butyne react- with (a) H_2/Lindlar catalyst and (b) Na/Liquid ammonia
21. Give two examples each for ortho/para and meta directing groups.
22. What are the products of sulphonation of naphthalene at different temperatures ?

(10 x 2 = 20 marks)

Section C (Paragraphs)

Answer any **five** *questions.*
Each question carries 6 *marks.*

23. Discuss with suitable example the E and Z system of nomenclature of geometrical isomers.
24. What are Carbocations ? Discuss the stability of carbocations.
25. Describe how resonance energy of benzene can be calculated from heat of hydrogenation.
26. Discuss the stereochemistry of addition of halogens to carbon-carbon double bond.
27. Write a short note on ozonolysis. Find the structures of alkenes that yield on ozonolysis (i) only acetone (ii) only acetaldehyde.
28. Discuss the mechanism of addition of hydrogen halides to an alkene.
29. Give the mechanism of nitration of benzene.
30. State Huckel's (4n + 2) rule. How will you explain aromatic character of Furan, Indole and Annulene by Huckel's rule ?

(5 x 6 = 30 marks)

Section D (Essays)

Answer any **two** *questions.*
Each question carries 10 *marks.*

31. (a) Discuss the optical isomerism in tartaric acid.

    (b) Give any *two* methods for the resolution of a racemic mixture.

(5 + 5 = 10 marks)

32. (a) Write a note on Baeyer's Strain Theory. What are its limitations ?

    (b) Describe the different conformations of n-butane with energy diagram.

(5 + 5 = 10 marks)

33. (a) What is hyperconjugative effect ? How it can be used to compare stability of Toluene and Ethyl benzene ?

    (b) What is Mesomeric effect ? Give two examples each for – M and + M groups. How it can be used to compare the basicity of aniline and paranitroaniline ?

(5 + 5 = 10 marks)

34, (a) Discuss the mechanism of dehydration of alcohols.

(b) Write a short note on 1, 4 addition of 1, 3-butadiene and Diels Alder reaction.

(5 + 5 = 10 marks)

(2 x 10 = 20 marks)

D 41961 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2018

(CUCBCSS–UG)

Chemistry

CHE 4B 04—ORGANIC CHEMISTRY—I

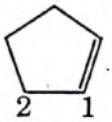
Time : Three Hours Maximum : 80 Marks

Section A

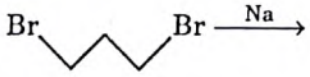
(Fill in the blanks and one word type questions.)

Answer **all** *questions.*
Each question carries 1 *mark.*

1. Isomers formed by rotation about single bonds are called ————.
2. What are the hybridizations of carbons 1 and 2 respectively in the following structure ?



3. The temporary displacement of π electrons to one of the bonded atoms is called ————.
4. Heterolytic fission of C-C bond generates ————.
5. The catalyst used in Friedal-Craft's alkylation is ————.
6. Give an example of a carcinogenic polycyclic arene.
7. The electrophile in aromatic nitration reaction is ————.
8. Baeyer's reagent is an alkaline solution of ————.
9. Write the product formed in the reaction :



10. Write the structure of an anti-aromatic compound.

(10 × 1 = 10 marks)

Section B (Short Answer Quesions)

Answer any **ten** *questions.*
Each question carries 2 *marks.*

11. Define metamerism with an example.
12. What is meant by enantiomeric excess ? Calculate the enantiomeric excess of a chiral substance with 70 % of one enantiomer and 30 % of the other.
13. Write the R and S configurations of lactic acid.
14. Draw the most stable conformation of cyclohexane showing all the axial and equatorial hydrogens.

Turn over

C 61218 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL/MAY 2018

(CUCBCSS—UG)

Chemistry

CHE 4B 04—ORGANIC CHEMISTRY—I

Time : Three Hours Maximum : 80 Marks

Section A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. Which one is more basic - pyridine or pyrrole ?
2. Dimethyl ether and ethanol are ———— isomers.
3. Draw the Newman projection of completely staggered butane.
4. What is Lindlar's catalyst ?
5. The substitution reactions in aromatic compounds are generally ————.
6. Give any *two* examples for aromatic ring deactivating groups.
7. The strain due to distortion of valency angle in simple aliphatic compounds is called ————.
8. Give the structure of R-glyceraldehyde.
9. A type of optical isomerism found in compounds lacking asymmetric carbons is ————.
10. Give an example for antiaromatic compound.

(10 × 1 = 10 marks)

Section B

Answer any **ten** *questions.*
Each question carries 2 *marks.*

11. Which one is more acidic - acetic acid or trichloroacetic acid ? Why ?
12. Explain the stability of tropylium cation.
13. Explain why unsaturated compounds decolorize bromine water.
14. What are nitrenes ? Give an example.
15. Which conformation of cyclohexane is more stable ? Why ?
16. Give the major product of dehydrohalogenation of 2-bromobutane. Explain the reaction.
17. What is Wurtz reaction ?

Turn over

18. What is Friedel-Craft's alkylation ?

19. What are the limitations of Baeyer's strain theory ?

20. Explain the Kharasch effect.

21. Explain the aromaticity in pyrrole.

22. Benzene does not decolorize bromine water through it has three double bonds. Why ?

(10 × 2 = 20 marks)

Section C

Answer any **five** *questions.*
Each question carries 6 *marks.*

23. Distinguish between relative configuration and absolute configuration with examples.

24. Differentiate enantiomers and diastereomers with suitable example.

25. Write any *two* applications each of inductive effect and mesomeric effect.

26. Discuss the conformational analysis of ethane with energy diagrams.

27. Compare the stability of methyl carbocations and ethyl carbocation by hyperconjugation.

28. Explain + E and – E effects with suitable examples.

29. With the help of a suitable example, explain the influence of steric effect of reactivity.

30. Explain cis and trans hydroxylation of alkenes with mechanism.

(5 × 6 = 30 marks)

Section D

Answer any **two** *questions.*
Each question carries 10 *marks.*

31. Discuss with suitable examples, the structure, formation, stability and important reactions carbocations and carbanions.

32. (i) Discuss briefly the structure and stability of benzene.

    (ii) How will you calculate the resonance energy of benzene from heat of hydrogenation ?

33. Give any *three* methods of preparation and discuss briefly addition and oxidation reactions of alkynes.

34. Explain the following :

    (a) Racemization.
    (b) Resolution.
    (c) Enantiomeric excess.
    (d) Asymmetric synthesis.

(2 × 10 = 20 marks)

C 80864 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION, APRIL 2020

Chemistry

CHE 4B 04—ORGANIC CHEMISTRY—I

Time : Three Hours Maximum : 80 Marks

Section A (One Word)

Answer **all** *questions.*
Each question carries 1 *mark.*

1. Homolysis of a bond results in ————————.
2. Dimethyl ether and ethyl alcohol are ———————— isomers.
3. Represent the functional group of ester.
4. Baeyer's reagent is ————————.
5. Give an example for anti-aromatic compounds.
6. Define resonance energy.
7. Number of chiral centers in lactic acid ————————.
8. Name the intermediate formed in ozonolysis reaction.
9. Name a carcinogenic polycyclic arene.
10. Hybridization of carbon in carbocation is ————————.

(10 × 1 = 10 marks)

Section B (Short Answers)

Answer any **ten** *questions.*
Each question carries 2 *marks.*

11. Define specific rotation.
12. Represent tartaric acid in Fischer and sawhorse projection.
13. Formic acid is a stronger acid than ethanoic acid. Justify your answer.
14. Discuss Freund reaction for cyclo alkanes.
15. 1-butyne or 2-butyne, which is more acidic ? Justify your answer.

16. Differentiate between conformational and configurational isomerism.
17. What are homologues series ? Give an example.
18. Define enantiomers with proper examples.
19. How will you convert ethylene bromide is into ethyne ? Write the reaction.
20. Differentiate between electrophiles and nucleophiles using proper examples.
21. "Tertiary alkyl halide undergo hydrolysis easily than secondary alkyl halide", Why ?
22. Discuss ring flipping using an example of cyclohexane.

(10 × 2 = 20 marks)

Section C

Answer any **five** *questions.*
Each question carries 6 *marks.*

23. Give the mechanism of nitration of benzene.
24. What are free radicals ? Discuss the stability of free radicals.
25. Explain any *two* resolution methods for a racemic mixture.
26. Discuss the conformations of n-butane with proper energy profile diagram.
27. Write a note on structure and stability of benzene based on M O concepts.
28. Write a note on Diels-Alder reaction using examples with 1, 3-butadiene.
29. Define Huckel's $(4n + 2)$ rule and explain the aromatic character of pyrrole and indole.
30. Discuss Markownikov and Anti-Markownikov addition with mechanism in alkene compounds.

(5 × 6 = 30 marks)

Section D

Answer any **two** *questions.*
Each question carries 10 *marks.*

31. (a) Write a brief note on :

    (1) Oxymercuration reaction. (2) Ozonolysis reaction.

    (b) Discuss Haworth synthesis of naphthalene. (6 + 4 = 10 marks)

32. (a) Discuss the structure, hybridization and classification of carbene intermediate.

    (b) Discuss the mechanism of addition of water into alkene with proper examples.

(6 + 4 = 10 marks)

33. (a) Write a note on Baeyer's strain theory.

(b) Discuss how resonance energy of benzene calculated from heat of hydrogenation.

(5 + 5 = 10 marks)

34. (a) Define inductive effect. Give examples for + I and – I groups. And also explain why 2-chlorobutanoic acid is more acidic than 3-chlorobutanoic acid.

(b) Define Hyperconjugation. How it can be used to compare stability of 1-butene and 2-butene ?

(5 + 5 = 10 marks)

[2 × 10 = 20 marks]

C 2171 (Pages : 3) Name.....

Reg. No.....

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
APRIL 2021

Chemistry

CHE 4B 04—ORGANIC CHEMISTRY—I

Time : Three Hours Maximum : 80 Marks

Section A (One Word)

Answer **all** *questions.*
Each question carries 1 *mark.*

1. A tertiary carbocation is ———— stable than primary carbocation.
2. 1-butene and 2-butene are ———— isomers.
3. Represent the functional group of ether.
4. Baeyer's reagent is ————.
5. Give one example for non-benzenoid aromatic compounds ?
6. Draw the two flipped cyclohexane structure in chair form.
7. Which isomer is having zero dipole moment ? Cis -2-butene or trans-2-butene ?
8. Draw the stable conformation of ethylene glycol.
9. Hybridization of carbene (triplet) intermediate————.
10. 1-Butyne is ———— acidic than 2-Butyne.

(10 × 1 = 10 marks)

Section B (Short Answers)

Answer any **ten** *questions.*
Each question carries 2 *marks.*

11. Define specific rotation ?
12. Represent tartaric acid in Fischer projection.
13. "Ortho-nitro phenol is more acidic than meta-nitro phenol". Justify your answer ?
14. Discuss ring flipping with suitable examples ?

15. Explain Anti-Markownikov addition reaction.
16. Arrange the compounds in order of decreasing reactivity toward aromatic electrophilic substitution : Benzene, phenol, toluene, nitrobenzene.
17. Explain Keto-enol tautomerism with proper examples.
18. What are Anti-aromatic compounds ? Give examples.
19. Arrange the carbocation given in their increasing stability order CH_3^+, $C_2H_5^+$, $(CH_3)_3C^+$. Justify.
20. Write the products obtained on sulphonation of naphthalene at different temperatures.
21. Write the products when 2-Butyne reacts with H_2/Lindlar catalyst.
22. Explain the term enantiomeric excess.

(10 × 2 = 20 marks)

Section C

Answer any **five** *questions.*
Each question carries 6 *marks.*

23. Give the mechanism of halogenation of benzene.
24. What are Carbanions ? Discuss the stability of carbanions.
25. Explain the mechanism of dehydration of alcohols.
26. Discuss the conformations of n-butane with proper energy profile diagram.
27. Define Hyperconjugation. How it can be used to compare stability of 1-butene and 2-butene ?
28. Discuss the mechanism of addition of water into alkene with proper examples.
29. State Huckel's $(4n + 2)$ rule. Explain the aromatic character of indole and quinoline.
30. Write a short note on 1, 4 addition of 1, 3-butadiene and Diels Alder reaction.

(5 × 6 = 30 marks)

Section D

Answer any **two** *questions.*
Each question carries 10 *marks.*

31. a) Write a brief note on :

    1) Freund reaction ; and 2) Ozonolysis reaction.

    b) Discuss Haworth synthesis of naphthalene ?

(6 + 4 = 10 marks)

32. a) Discuss the definition, structure, hybridization of carbocation intermediate.

b) Discuss the stereochemistry of addition of halogens into alkene with proper examples.

(6 + 4 = 10 marks)

33. a) Write a detailed comparison note on basicity of pyrrole and pyridine.

b) Discuss in detail about ring activating and deactivating group with proper examples.

(5 + 5 = 10 marks)

34. a) Define mesomeric effect ? Give examples for + M and – M groups and also compare the basicity of aniline and p-nitroaniline.

b) Discuss the structure and stability of benzene based on M O concepts ?

(5 + 5 = 10 marks)

[2 x 10 = 20 marks]

C 21516 **(Pages : 2)** **Name.....**

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION, APRIL 2022

Chemistry

CHE 4B 04—ORGANIC CHEMISTRY—I

(2019 Admission onwards)

Time : Two Hours Maximum : 60 Marks

Section A (Short Answers)

Answer at least **eight** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 24.

1. Distinguish between inductive effect and mesomeric effect.
2. Write a note on carbenes.
3. Which is the most acidic among chlorobutanoic acids ? Justify.
4. Predict the product formed by the catalytic hydrogenation of propyne and reduction of propyne by Lindlar's catalyst.
5. Account for the acidity of terminal alkynes.
6. What is dipole induced dipole interactions ?
7. Explain the aromaticity in furan.
8. What is azulene ?
9. Why cyclopentadienyl anion is aromatic while the corresponding cation is not ?
10. The C - C bond length in benzene is 1. 39 Å . Explain.
11. How is benzyne intermediate formed ?
12. How will you convert benzene to chloro benzene ?

(8 × 3 = 24 marks)

Section B (Paragraph)

Answer at least **five** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall Ceiling 25.

13. State Markovnikov's rule. Explain its mechanism.
14. Write a note on RS system of nomenclature for acyclic optical isomers with one asymmetric carbon atom.

Turn over

15. What are meso compounds ? Explain with an example. How is it different from a racemic mixture ?
16. Discuss the stability order of 1°, 2° and 3° alkyl free radicals.
17. Explain the term steric hinderance with suitable example.
18. Discuss the mechanism of Friedel Crafts acylation reaction.
19. Write a brief note on meta directing groups aromatic electrophilic substitution reactions.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

20. Discuss Bayer's strain theory. Explain its merits and limitations.
21. a) Illustrate the application of ozonolysis in locating the position of the double bond in an alkene.
    b) Explain oxymercuration - reduction reaction with a suitable example.

(1 × 11 = 11 marks)

C 41200 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2023

Chemistry

CHE 4B 04—ORGANIC CHEMISTRY—I

(2019 Admission onwards)

Time : Two Hours Maximum : 60 Marks

Section A (Short answers)

Answer questions up to 20 *marks.*

Each question carries 2 *marks.*

1. Name two groups with + 1 effect and – 1 effect.
2. What are free radicals ? How are they formed ?
3. Which is more stable but-1-ene or but-2-ene ? Why ?
4. Distinguish between enantiomers and diastereomers.
5. Draw the chair and boat forms of cyclohexane and indicate the axial and equatorial bonds.
6. Represent the E and Z isomers of 1-bromo-1-chloropropene.
7. Discuss any two tests for identifying unsaturation in organic compounds.
8. An alkene on ozonolysis gave only acetone as the product. Identify the alkene and write the equation for ozonolysis reaction.
9. What is the major product of dehydration of butanol-1 ? Explain.
10. State and explain Huckel's rule.
11. Which is more basic - pyrrole or pyridine ? Justify.
12. What are anti aromatic compounds ? Give two examples.

(Ceiling of marks : 20)

Turn over

Section B (Paragraph)

Answer questions up to 30 *marks.*
Each question carries 5 *marks.*

13. Explain the stability order of 1°, 2° and 3° carbocations.
14. Distinguish between intermolecular and intramolecular hydrogen bonding with suitable examples.
15. Draw the planar representations of dextro, laevo and mesotartaric acids and explain their optical activities.
16. State and explain Markovnikov's rule with a suitable example.
17. How will you convert : (i) Benzene to acetophenone ; (ii) Benzene to parabromotoluene ? Give equations.
18. Explain the directive influence of nitro group in aromatic electrophilic substitution.
19. Briefly discuss benzyne intermediate mechanism.

(Ceiling of marks : 30)

Section C (Essay)

Answer any **one** *questions.*
Each question carries 10 *marks.*

20. (a) Discuss the relative stability of the different conformations of butane with potential energy diagram.
    (b) Explain the geometrical isomerism in fumaric acid and maleic acid.
21. Illustrate the acidity of terminal alkynes with suitable reactions. Also explain the reason for the acidity of terminal alkynes.

(1 × 10 = 10 marks)

D 103031 **(Pages : 2)** **Name.....**

Reg. No.....

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2024

Chemistry

CHE4B04—ORGANIC CHEMISTRY—I

(2019 Admission onwards)

Time : Two Hours Maximum : 60 Marks

Section A (Short Answers)

Answer questions up to 20 *marks.*
Each question carries 2 *marks.*

1. What is Inductive effect ? Illustrate -I effect with one example.
2. Explain the significance of hydrogen bonding in the anomalous behaviour of water.
3. Among the *two* types of carbene, which is more stable and why ?
4. What are meso compounds ? Draw the Fischer Projection formula of meso-tartaric acid.
5. Draw the flying wedge formulae of R and S - glyceraldehyde.
6. Depict the conformational energy diagram for n- butane.
7. What is Huckel's Rule of aromaticity ? Illustrate with an example.
8. The *pKa* of cyclopentadiene is 15. Describe the reason for the low *pKa.*
9. Which is more basic, pyridine or pyrrole? Draw the structures and explain.
10. Compare the aromaticity of azulene and naphthalene.
11. Explain with necessary equations, the mechanism of nitration of benzene.
12. What is Friedel-Crafts acylation reaction ?

(Ceiling 20 marks)

Section B (Paragraph Questions)

Answer questions up to 30 *marks.*
Each question carries 5 *marks.*

13. How electron displacement effects play a role in the stability of alkenes ?
14. Arrange the following in the order of increasing basic nature: Aniline, p-nitroaniline,p-toluidine. Justify your answer.

Turn over

15. Explain with necessary equations the compounds you would use to resolve the racemic mixtures of (a) 2-phenylethylamine and (b) tartaric acid.

16. Differentiate between SN1 and SN2 mechanisms of substitution at saturated carbon.

17. Predict the product formed during the reaction of but-l-yne with ozone. Explain with mechanism.

18. How reactive are the different sites in toluene? Comment on the relative yields of the products formed in the reaction of toluene with HNO_3 and H_2SO_4. Justify the answer with mechanisms.

19. Write a short note on stability of benzene using MO theory.

(Ceiling 30 marks)

Section C (Essay)

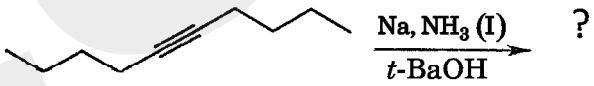
Answer any **one** *question.*
The question carries 10 *marks.*

20. Arrange the different conformers of cyclohexane in the order of decreasing stability. Explain the reason for the stability of the cyclohexane conformers.

21. (a) Give any two preparation methods of alkenes.

(b) Write a short note on Anti-Markownikov addition of alkyl halides.

(c) Predict the product and explain the stereochemistry of the following reaction



(1 × 10 = 10 marks)

C 23296 (Pages : 2) Name.....

Reg. No.....

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2017

(CUCBCSS–UG)

Chemistry

CHE 4B 04—ORGANIC CHEMISTRY—I

Time : Three Hours Maximum : 80 Marks

Section A (One Word)

Answer **all** *questions.*
Each question carries 1 *mark.*

1. The next member in the homologues series of Propanone is ———.
2. Draw the structure of functional isomer of $CH_3—O—CH_3$.
3. Out of maleic acid and fumaric acid which will give its own anhydride on heating.
4. The mono ester of one of the tartaric acids is optically active but give inactive product when hydrolysed. The tartaric acid isomer is ———.
5. The major product formed by treating 2-Bromobutane with alcoholic KOH is ———.
6. The more basic amine among aniline and p-anisicine is ———.
7. An example for a conjugated diene is ———.
8. An alkyne with molecular formula C_4H_6 give a red precipitate with ammonical cuprous chloride solution. The alkyne is ———.
9. One unique property of Carbon which accounts for the occurrence of so many organic compounds is ———.
10. In the dehydrohalogenation reaction of $CH_3—CH_2—CH_2—CH_2Cl$ and $CH_3—CH_2—CHCl—CH_3$, Saytzeff's rule is applicable only to ———.

(10 × 1 = 10 marks)

Section B (Short Answers)

Answer any **ten** *questions.*
Each question carries 2 *marks.*

11. Draw the structural isomers of monochloropropane. What is the name given for this type of isomers ?
12. 1-Bromopropane and 2-Bromopropane are warmed with metallic sodium in dry ether. What are the products formed ?
13. Give a short account of Keto-enol tautomerism by selecting a suitable example.
14. Which isomeric alkene is formed when 2-Butyne is reduced with Sodium in liquid ammonia ? Write the reaction.
15. Compare the acidity of fumaric acid and acetic acid. Justify your answer.
16. Which is more basic Pyrrole or Pyridine ? Why ?

Turn over

17. Give two examples each for activating and deactivating groups.
18. Predict the structure of alkyne which would give Dimethyl glyoxal on ozonolysis.
19. Give a test for unsaturation of an organic compound. Explain the chemistry.
20. Cyclopentadienyl anion is aromatic. Why ?
21. What are Anti aromatic compounds ? Give one example.
22. What is meant by free radical substitution ? Give one example.

(10 × 2 = 20 marks)

Section C (Paragraphs)

Answer any **five** *questions.*
Each question carries 6 *marks.*

23. Explain the mechanism of halogenation in benzene.
24. Give an account of ozonolysis of alkenes. How ozonolysis helps in determining the position of double bond in alkenes ? Illustrate with example.
25. Discuss the mechanism of dehydration of alcohols.
26. Explain why α substitution in naphthalene is more favourable than β substitution.
27. Discuss with suitable example, the E and Z system of nomenclature of geometrical isomers.
28. What are Carbenes ? Give its hybridization and structure. Write two reactions in which they are formed.
29. Give a short account of optical isomerism of compounds lacking asymmetric carbon atoms.
30. Explain hyperconjugative effect and compare the stabilities of 1-Butene and 2-Butene, with this effect.

(5 × 6 = 30 marks)

Section D (Essays)

Answer any **two** *questions.*
Each question carries 10 *marks.*

31. (a) What do you understand by Chair and Boat conformations of cyclohexane ? Why chair form is more stable than boat form ?

    (b) Write a short note on asymmetric synthesis.

(5 + 5 = 10 marks)

32. What are Carbanions ? Discuss the formation, hybridization, structure and stability of Carbanions.
33. (a) Discuss the cis and trans hydroxylation of alkenes.

    (b) Give a brief account of Diels Alder reaction.

(6 + 4 = 10 marks)

34. (a) Taking suitable examples illustrate different rules followed to assign R and S notation to optical isomers.

    (b) Suggest two methods to resolve racemic Lactic acid into optically active forms.

(5 + 5 = 10 marks)

(2 × 10 = 20 marks)