FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2021

Common Course

A 14—INTELLECTUAL PROPERTY RIGHTS

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 the function of World Intellectual Property Organization (WIPO) ?

2. How do patents benefit the market for inventions ?

3. Identify inventions not patentable in India.

4. What are generally covered under copyright ?

5. Identify exclusive rights of copyright owners.

6. What is the period of duration and renewal of trademark registration in India ?

7. What is the meaning of service mark ?

8. What is the significance of Madrid Protocol ?

9. Who governs GI Tag in India ?

10. Identify legal framework which protects industrial designs in India.

11. What are the benefits of a design registration ?

12. What are the objectives of Convention of Biological Diversity ?

13. Define the concept of 'novelty' in biotechnological invention.

14. What is the meaning of 'inventive step' ?

15. Identify forms of intellectual property covered under TRIPS.

(10 × 3 = 30 marks)

Turn over

Section B (Paragraph Questions)

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

16. Discuss the importance of TRIPS agreement.

17. Examine the meaning and benefits of patent pooling.

18. The intellectual property system needs to balance the interests of creators and consumers. Comment.

19. Briefly discuss the process of patent filing in India.

20. What is meant by related rights ? Who are its beneficiaries ?

21. Novelty and non-obviousness are foundations of biotechnological inventions. Explain.

22. Identify and examine the legal and social implications of genetic patents.

23. Critically examine the impact of IPR regime on biodiversity.

(5 × 6 = 30 marks)

Section C (Essay Questions)

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

24. How intellectual property regimes can protect biotechnological inventions? Discuss rationale for intellectual property protection of biotechnology.

25. Discuss the international regimes in the protection of intellectual property rights and challenges in their functioning.

26. Pandemic demanded the urgency of bypassing rigid boundaries of IPR regimes. Explain.

27. What are the forms of intellectual property protected in India? Identify legal frameworks which protect them.

(2 × 10 = 20 marks)

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2021

Common Course

A 13—NATURAL RESOURCE MANAGEMENT

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 are non-renewable energy resources ?

2. What is Bioprospecting ?

3. What is exitu conservation ?

4. Write examples of any *two* national parks in India ?

5. What are the major threats of wetland ?

6. What is human resource ?

7. What is Biodegradation ?

8. What is a Hotspot ?

9. What are key stone species ?

10. What is EIS ?

11. What is carbon footprint ?

12. What is Energy ?

13. What is Silviculture ?

14. What are the major reasons of forest fire ?

15. What are Ramsar sites ?

(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 different renewable energy resources.

17. Explain the major and minor forest products in India.

18. Explain the Contemporary practices in natural resource management.

19. Why should we conserve biodiversity ?

20. Explain the flow of energy and cycling of materials.

21. Explain Environmental Impact Assessment.

22. Explain Participatory Resource Appraisal.

23. Explain the Soil degradation and its management practices.

(5 × 6 = 30 marks)

Section C

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

24. Explain the Significance of biodiversity, Threats and Management strategies for conservation of biodiversity.

25. Explain the national and international efforts in natural resource management and conservation.

26. Explain the role of Remote Sensing, Geographic Information System in sustainable water resource management.

27. Explain the types of forests, forest cover and its significance with special reference to India.

(2 × 10 = 20 marks)

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)

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

Common Course

A 14—EVOLUTION OF MEDIA TECHNOLOGY

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. Acta Diurna.

2. PAL.

3. Betamax.

4. DRM.

5. Oleograph.

6. Hybrid IPTV.

7. Podcasting.

8. Cuneiform.

9. Bi Sheng.

10. Catch-up TV.

11. Kinescope.

12. Grain.

13. Vector Fonts.

14. Photopolymer Plates.

15. SMPTE Timecode.

(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. Explain the negative impacts of technology on communication.

17. Write in detail about Xylography.

18. Distinguish between Satellite Radio and Internet Radio.

19. How can we classify printing papers according to different kind of finishes/coatings ?

Turn over

20. Discuss the role of Optical Disks as one of the major secondary storage devices.

21. Differentiate between analog media and digital media signals in TV transmission.

22. Give an account on the contributions of Johannes Gutenberg to printing technology.

23. Write in detail about prominent digital video (DV) formats.

(5 × 6 = 30 marks)

Section C

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

24. What you mean by 'The Age of Signs and Signals' in the evolution of mass communication ? Explain.

25. What are the drawbacks of DAB ?

26. Discuss in detail about offset printing technology.

27. Give a comparative study about the possibilities of editing audiovisual contents in mobile devices rather than in PCs.

(2 × 10 = 20 marks)

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION APRIL 2021

Common Course

A 13—MEDIA MANAGEMENT

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. HenryFayal.

2. Entrepreneur.

3. Public Relations.

4. CSR.

5. Interactive Media.

6. Authority.

7. Small enterprise.

8. Internal public.

9. Media Monopoly.

10. Publisher.

11. Organizing.

12. Centralization.

13. Media mix.

14. Globalisation.

15. Rupert Murdoch.

(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. Differentiate between Administration and Management.

17. What is Staffing ? Explain various elements of staffing.

18. Write a note on Media Entrepreneurship.

19. What are the duties of a manager ?

20. Write a note on Media management.

21. The role advertising division of media House.

22. Explain public. Differentiate between Internal and External public

23. Explain the functions of an entrepreneur.

(5 × 6 = 30 marks)

Section C

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

24. Discuss the principles of management suggested by Henry Fayol and its applications in media management.

25. Describe the role of PRO.

26. Explain the different stages of TV production.

27. Evaluate the statement : "Management is an art and a science".

(2 × 10 = 20 marks)

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION APRIL 2021

Common Course

A14—MICROPROCESSORS—ARCHITECTURE AND PROGRAMMING

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 the importance of accumulator in 8085 ?

2. What are the various microprocessor initiated operations in 8085 ?

3. How many control signals are used in 8085 microprocessor ?

4. What are the important memory classifications ?

5. What is an op-code ?

6. How 8085 microprocessor distinguishes between data and address ?

7. What do you mean by machine cycle ?

8. What is peripheral mapped I/O ?

9. What are the instructions related while stack is used in 8085 ?

10. What are machine control instructions in 8085 ?

11. What is masking in interrupts? How can interrupt be masked using instructions ?

12. What is the need for a subroutine ?

13. Calculate the time taken to execute the following set of instructions :

    LXI H:4050H

    MOV A, M

    XRA A

    ADD M

    Assume a 2 MHz clock is used in 8085.

Turn over

14. What are the applications of 8254 chip ?

15. Name the flags associated with 8086.

(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. Explain the bus organization in 8085.

17. Write a note on special purpose registers in 8085.

18. Explain the rotate instructions in 8085.

19. Write an ALP to find largest among a set of data stored in location with starting address 4000 H.

20. Explain the instructions with proper examples :

    (a) LHLD 4500H.

    (b) PUSH PSW.

21. Write a subroutine to check the number taken in accumulator is odd or even.

22. What are delay programs and what are they used for ?

23. Explain how pipelining is used in 8086.

(5 × 6 = 30 marks)

Section C

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

24. Explain how the various registers are organised in 8085.

25. Define addressing modes. With suitable examples explain 8085 addressing modes in detail.

26. Explain the various hardware and software interrupts in 8085. Explain the various instructions associated to handle interrupts.

27. Explain the internal architecture of 8086 microprocessor.

(2 × 10 = 20 marks)

FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION APRIL 2021

Common Course

A 13—DATA COMMUNICATION AND OPTICAL FIBERS

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. How is topology related to line configuration ?

2. Why is synchronization a problem in data communication ?

3. What are the functions of DCE ? Give an example of a DCE.

4. How does FDM combine multiple signals to one ?

5. What is the advantage of asynchronous TDM ?

6. How can the capacity of a GSM cell be increased ?

7. What are the reasons for the delays in a GSM system for packet data traffic ?

8. What is the purpose of line discipline ?

9. In what situation does the sender re-transmit a packet ?

10. What are the uses of BSC control frames ?

11. What are the advantages of FDDI over a basic Token ring ?

12. What is the basic principle of propagation of light through the fiber ?

13. What is a double heterostructure ?

14. Define dark current as applied to a photo-detector ?

15. Define mode field diameter.

(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. What are the four different methods that convert a digital signal to analog signal ?

17. Write a note on twisted pair cables.

18. Explain in detail synchronous TDM.

19. What are the two basic groups of logical channels specified by GSM ?

20. What are the two methods that control the flow of data across the communication links.

21. In HDLC, what is bit stuffing and why is it needed ?

22. What are the advantages of optical fiber communications ?

23. Distinguish between LEDs and LASERs.

(5 × 6 = 30 marks)

Section C

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

24. Explain the different network topologies.

25. Explain the GSM system architecture.

26. Explain the three switching methods.

27. What are the different types of fibers used in optical fiber communications ?

(2 × 10 = 20 marks)

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)

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

Common Course

A 14—BANKING AND INSURANCE

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 the role of exchange banks ?

2. What are DFIs ?

3. What is Tele banking ?

4. What is RTGS ?

5. What is Reverse REPO ?

6. What is social banking ?

7. Define Promissory notes.

8. What is Bank draft ?

9. Who is a customer of the bank ?

10. What is Negotiation Back ?

11. How a negotiable instrument can be discharged ?

12. What is E-Purse ?

13. Who is an Insured ?

14. What is Double insurance ?

15. What is social insurance ?

(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 role of RRBs.

17. Narrate about Unit banking.

18. What are the advantages of E-banking ?

19. Who are the Parties to a bill of exchange ?

20. When Banker may Refuse Payment ?

21. Define Holder in due course.

22. Explain the Features of insurance.

23. Explain the duties, powers and functions of IRDA.

(5 × 6 = 30 marks)

Section C

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

24. Explain the Role of Commercial banks in a developing economy.

25. Explain the Emerging Trends in Banking.

26. Define Crossing. Explain the different types of crossing.

27. Narrate the objectives and functions of LIC.

(2 × 10 = 20 marks)

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

Common Course

A 13—ENTREPRENEURSHIP DEVELOPMENT

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 an intrapreneur ?

2. Who is an Industrial entrepreneur ?

3. Mechanism of Long-term finance to entrepreneurships.

4. What is EDP ?

5. What is MVN ?

6. What is NEDB ?

7. What is Green Channel in case of entrepreneurship ?

8. What is The Workshop -bay ?

9. What is BIFR ?

10. What is future demand ?

11. What do you mean by technical feasibility ?

12. What is EHTP ?

13. Mention the four factors affecting location decision.

14. What is project report ?

15. What is MUN ?

(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. Mention the Entrepreneurial Functions.

17. What are the Pre-requisites for Entrepreneurship Development ?

18. List out the functions of SISI.

19. What are the objects of the MSMEs ?

20. Mention the benefits of industrial estates.

21. Discuss the eligibility criteria for SSI registration.

22. Mention the sources of project ideas.

23. What are the functions of Techno Park ?

(5 × 6 = 30 marks)

Section C

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

24. Explain the Role of Entrepreneurs in the Economic Development.

25. Discuss the Major Causes of Entrepreneurial Sickness and remedial measures.

26. Explain the scope for incentives in promoting entrepreneurship.

27. Explain in detail the Project report for New Business.

(2 × 10 = 20 marks)

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

(Common Course for L.R.P.

MBG 4A 14—MOLECULAR BIOLOGY

(2018 Admissions)

Time : Three Hours   Maximum : 80 Marks

Part A

Answer all the **twelve** *questions.*

1. The scientist who described Molecular biology is —————.

2. The specific conformation of pentose ring in the sugar moiety of nucleic acid is known as —————.

3. The number of times one DNA strand crosses the other strand is known as —————.

4. DNA bound to the histone proteins which form a repeating array of DNA-Protein particles called—————.

5. The RNA that catalyses the chemical reactions is known as —————.

6. The scientist who discovered histone was —————.

7. The region where the sigma subunit of RNA polymerase binds with the DNA is known as —————.

8. 5S RNA and 23 S RNA are constituted to form ————— subunit of Ribosome.

9. The spliceosome is made up of proteins and small RNAs that are associated to form protein-RNA enzymes called —————.

10. The triple stop codon ————— is known as opal.

11. Wobble hypothesis is proposed by —————.

12. The folding of several proteins is facilitated by the action of specialized proteins is known as —————.

(12 × ½ = 6 marks)

Part B

Answer all **ten** *questions in one or two sentences.*

13. Soluble RNA.

14. Anticodon.

15. DNA gyrase.

Turn over

16. Clover leaf structure.

17. D-loop replication.

18. Frame shift mutation.

19. Wobble hypothesis.

20. Activators.

21. Operon.

22. Ames test.

(10 × 2 = 20 marks)

Part C

Answer briefly any **six** *questions.*

23. Discuss briefly the transforming principle propose by Griffith.

24. What are the major forces stabilised by B-DNA ?

25. Compare the functions of Type I and II topoisomerases.

26. What do you mean by rolling circle replication ?

27. Differentiate between Aneuploidy and Polyploidy.

28. What do you mean by post transcriptional modification ?

29. Examine the structure of eukaryotic ribosome.

30. Summarise the salient features of genetic code.

(6 × 5 = 30 marks)

Part D

Answer any **two** *questions in details.*

31. Investigate the major types of DNA repair mechanism with suitable examples.

32. What you mean by Lac operon ? Discuss the regulation of gene expression by Lac Operon.

33. Elaborate various steps of translation in E. culi.

(2 × 12 = 24 marks)

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

Common Course for L.R.P.

MBY 4A 08—MOLECULAR BIOLOGY AND BIOINFORMATICS

(2014 Admissions)

Time : Three Hours

Maximum : 80 Marks

Section A

Answer all questions.
Each question carries ½ marks.

1. The method of aligning several sequence simultaneously is called ——————.

2. The basic structural unit of chromatin is called ——————.

3. The sequence alignment tool provided by NCBI is ——————.

4. Franklins work which led to the discovery of DNA double helix is ——————.

5. The degeneracy of genetic code is explored by ——————.

6. FASTA was published by ——————.

7. The ribosomal binding sequences in bacterial mRNA are called ——————.

8. An example for database dealing with biological pathways and metabolism is ——————.

9. The Sanger's method of DNA sequencing uses —————— nucleotides.

10. The enzymes responsible for photo reactivation of DNA.

11. BLOSUM matrices are used for —————— sequence alignment.

12. The database used for the organization of animal virus.

(12 × ½ = 6 marks)

Section B

Write short notes on all the questions.
Each question carries 2 marks.

13. Give importance of Structural database with example.

14. What is Kornberg enzyme ?

Turn over

15. Compare EMBL and TrEMBL.

16. What is DNA chip ?

17. Explain phylogenetic analysis with tool.

18. Give difference of Writhe and linking Number.

19. What is OMIM ? Give its importance.

20. What is Thymine dimer formation ? How can it be rectified ?

21. What is data mining ? Give two tools used for data mining.

22. Give importance of Restriction enzyme.

(10 × 2 = 20 marks)

Section C

Write short notes on any six questions.
Each question carries 5 marks.

23. Write brief account on drug designing with CADD.

24. Describe rolling circle model of DNA replication.

25. Describe the role of internet in bioinformatics.

26. Explain RNA polymerases seen in prokaryotes and eukaryotes.

27. Explain different types of RNA with its importance.

28. Describe Hershey-Chase experiment with suitable diagram.

29. Explain the process of Transcription with the help of a labelled diagram.

30. What are the applications of PROSITE and PRINT ?

(6 × 5 = 30 marks)

Section D

Answer any two questions.
Each question carries 12 marks.

31. Explain about the reasons for DNA damages and their repair mechanisms.

32. Write a detailed account on different types of sequence alignment methods with example.

33. Describe briefly on the mechanism of gene regulations. Describe Trp operon.

(2 × 12 = 24 marks)

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION APRIL 2021

Common Course For L.R.P.

EWM 4A 08—ENVIRONMENT AND HUMAN HEALTH

Time : Three Hours   Maximum : 80 Marks

Part A Fill in the Blanks

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

1. Gonorrhea is caused by ————.

2. ———— is the disease caused by human papilloma virus.

3. ———— and ———— are Personal hygiene practices.

4. UTI stands for ————.

5. ZIFT means ————.

6. ———— is a Paternity test.

7. ART stands for ————.

8. ———— is a Prenatal Diagnosis method.

9. ———— is the permanent birth control option in males.

10. MTP means ————.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 marks

11. What are life-style diseases ?

12. What is cryopreservation of blastocysts ?

13. What is Eugenics ?

14. What is EEG ?

15. What is Endoscopies ?

16. What is Laser microscopy ?

Turn over

17. What is Haemodialysis ?

18. What is Angioplasty ?

19. What is Infertility ?

20. What is sperm bank ?

(10X2 = 20 Marks)

Part C

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

21. Explain the Socio economic dimensions of STD.

22. Explain IVF, ET, AI, GIFT, ZIFT, ICSI ; Ovum and sperm bank, Embryo or oocyte donation.

23. Explain Brain death, organ donation and organ transplantation.

24. Explain Imaging techniques and purpose of imaging.

25. Explain ELISA, Western Blot, DNA finger printing.

26. Explain the abuse and effects of Alcohol, drugs, nicotine and chemicals.

27. Explain the Prevention of misuse act -PNDT Act.

28. Explain the need for Healthy relationship with opposite sex, Gender discrimination in family and society.

(5 × 6 = 30 marks)

Part D

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

29. Explain Fertility Control, Natural methods and artificial methods.

30. Explain the need for human health education, Healthy relationship with opposite sex. Gender discrimination in family and society, need for awareness.

31. Explain Sexually transmitted infectious diseases : Symptoms, mode of transmission, diagnosis and treatment.

(2 × 10 = 20 marks)

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
APRIL 2021

Common Course For L.R.P.

A 14—INTELLECTUAL PROPERTY RIGHTS

Time : Three Hours

Maximum : 80 Marks

Section A

*Answer **all** questions.*

1 mark each.

1. Who is India's representative/ambassador to WTO ?

2. Expand TKDL ?

3. World intellectual property day celebrated on ——————— April.

4. Transfer of trade mark rights is possible by the way of ——————.

5. What is prior art ?

6. If you file provisional specification, the complete specification is required to be filed within ——————— months ?

7. Literary, musical and artistic works can be protected by ———————.

8. Agmark indicates ———————.

9. What protects the intellectual property created by inventors ?

10. Logos, names and brands can be classified under ———————.

(10 × 1 = 10 marks)

Section B (Short Answer Questions)

*Any **ten** to be answered.*

2 marks each.

11. Differentiate between novelty and originality.

12. What is Madrid protocol ?

13. What do the following symbols denote ?

(i) TM ; (ii) ® ; (iii) © ; and (iv) SM.

14. What is expected from patentee as an obligation to the State ?

Turn over

15. Does grant of a patent in one country affect its grant or refusal in another country ?

16. What is the Paris Convention ?

17. What is MFN ? Which country India set to withdraw MFN status ?

18. What is cyber-squatting ?

19. Define Hague Agreement

20. What is trade secret ? Which trade secrete is maintained for long years ?

21. What do you mean by extant variety? What is the duration of protection for extant variety ?

22. Differentiate between trademark and geographical indication ?

(10 × 2 = 20 marks)

Section C (Short Essay)

Answer any **five** *questions.*
6 *marks each.*

23. What is industrial design ? What are the rights of the owner ?

24. Short essay on Infringement of IPR ?

25. List the major functions of trade mark.

26. Highlight the Criteria's of patentability in India.

27. Comment on Prior art.

28. Discuss the major steps involved for getting patent ?

29. Short essay on trademark ?

30. The Protection of Plant Varieties and Farmers' Right Act, 2001—Comment.

(5 × 6 = 30 marks)

Section D (Essay)

Answer any **two** *questions.*
10 *marks each.*

31. Discuss the different types of IPRs and its advantages ?

32. What is trade mark ? Add a note on 'Assignment of trade mark'.

33. What is TRIPS Agreement ? Outline the main three features of the TRIPS Agreement

34. Discuss the protection of GI in India with example.

(2 × 10 = 20 marks)

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
APRIL 2021

Common Course For L.R.P.

A 14—BASICS OF AUDIO AND VIDEO MEDIA

Time : Three Hours

Maximum : 80 Marks

Part A

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

1. The audio frequency range is ———————.

2. Noise produced by ripples in power supply is called ———————.

3. Sound pressure variations are represented in ———————.units

4. ——————— is a transducer which converts sound pressure variations into electrical signals.

5. Any change in frequency, phase and amplitude of output sound as compared to the input audio signal is called ———————.

6. Video recording on disc is done in the form of ———————.

7. Expansion of MIDI is ———————.

8. In video recording the relative speed of tape is increased by using ———————.

9. In magnetic recording, the problem of non- linear distortion is solved by ———————.

10. Production of complex waveforms of music by electronic means is called ———————.

(10 × 1 = 10 marks)

Part B

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

11. Define pitch of sound.

12. What is meant by stereophony ?

13. What is a baffle ? What is its necessity ?

Turn over

14. What are the advantages of AC biasing in magnetic tape recording ?

15. Write short notes on AAC standard.

16. Write short notes on VCD.

17. What is meant by the resolution of A/D converter ?

(5 × 2 = 10 marks)

Part C

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

18. Define amplitude, frequency, phase and velocity of sound wave.

19. Explain the diffraction of sound waves.

20. What is meant by directivity of microphone ?

21. Why do we use crossover networks in multi-way loudspeaker system ? Explain.

22. Draw the circuit of mixer circuit for a P.A. system. Explain its working.

23. Explain MP3 compression method.

24. Derive the relationship between tape speed and bandwidth in video recording.

25. Explain the process of reproduction of video signals in VCR with block diagram.

(6 × 5 = 30 marks)

Part D

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

26. Explain the reverberation and its importance. Explain the energy growth and decay of sound at a point in reverberating room with the help of diagram.

27. Explain the construction and working of electrodynamic loudspeaker.

28. Explain any *two* digital tape recording system in detail.

29. Explain the video compression techniques MPEG 2 and H.26 standards.

(2 × 15 = 30 marks)

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

Common Course

A 14—NUTRITION AND HEALTH

Time : Three Hours   Maximum : 80 Marks

I. Objective Type (*All questions* are *compulsory*) :

Multiple choices :

1 Pectin belongs to (Monosaccharide, Disaccharide, Polysaccharide, Peptones)

2 Calorific value of fat is (5.65, 9.45, 4.1, 7.65)

3 Pellagra is caused by deficiency of (Vit Bl, Vit B3, Vit B12, Vit B6)

Answer in a single *or* two words :

4 Mineral present in haemoglobin.

5 Sunshine vitamin.

Write True/False :

6 Energy value of foods can be measured in calories.

7 Iodine deficiency leads to Beri Beri.

Fill in the blanks :

8 PER stands for ———————.

9 ——————— fatty acids has a single bond between its carbon atom.

10 RDA for Vit C is ———————.

(10 × 1 = 10 marks)

II. Short Answer Type Questions (Answer any *five* questions) :

11 Define PUFA.

12 What is osteomalacia ?

13 What are monosaccharides ? Give examples.

14 Define the term health.

15 Name any 2 major sources of Vit B6.

16 What are trace elements ?

17 What are simple proteins ?

(5 × 2 = 10 marks)

Turn over

III. Short Essay Questions (Answer any *six* questions) :

    18 Differentiate starch and cellulose.

    19 What are the main determinants of health ?

    20 What are the basic five food groups ? Explain any two.

    21 Define fibre. What are the various types of fibre ?

    22 Discuss the functions of niacin and cyanocobalamin in the human body.

    23 What are the factors affecting basal metabolic rate in the body.

    24 List down the functions of proteins.

    25 Write short notes on triglycerides and cholesterol.

(6 × 5 = 30 marks)

IV. Essay Questions (Answer any *two* questions) :

    26 Define anaemia. Discuss in detail on the role of iron and folic acid in alleviation of the symptoms of anaemia. List out the good sources of iron and folic acid.

    27 What is the role of water in human nutrition ? What are the symptoms and effect of water deficiency in the human body ?

    28 Explain Vit A with reference to :

        a) Functions.   b) Deficiency.

        c) Requirement.   d) Sources.

    29 Explain in detail about the digestion, absorption, transportation and utilization of carbohydrates in the human body.

(2 × 15 = 30 marks)

Name..

Reg. No..

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

Common Course for L.R.P.

A 14—NUTRITION AND HEALTH

Time : Three Hours — Maximum : 80 Marks

A) Objective Type. Answer *all* questions. 1 marks each :

Multiple choice :

1 What is the preformed form of vitamin A ?

    a) Retinol.   b) Carotene.

    c) Lutein.   d) Chlorophyll.

2 In diabetic patients, which form of carbohydrate is preferred ?

    a) Simple sugars.   b) Complex carbohydrate.

    c) Free glucose.   d) Lactulose.

3 Which is the ideal fluid for correcting dehydration ?

    a) Carbonated beverages.   b) Bicarbonate salts.

    c) Coffee.   d) ORS.

4 The deficiency of which vitamin results in 'pellegra' ?

    a) Thiamine.   b) Riboflavin.

    c) Niacin.   d) Tyrosine.

5 How many grams of fat does 100g of oil provide ?

    a) 50 g.   b) 100 g.

    c) 80 g.   d) 40 g.

Answer in *one* word :

6 Which is the vitamin required for calcium absorption ?

7 Which form of iron is present in plant foods ?

8 What differentiates protein from other macronutrients ?

9 Is palmitic acid saturated or unsaturated form of fatty acid ?

10 Raffinose is which form of carbohydrate ?

(10 × 1 = 10 marks)

Turn over

B) Short Answer. Answer any *five* questions. 2 marks each :

11 How much water does a normal person and manual labourers require per day ?

12 As per the dietary guidelines, what proportion of energy should be derived from different macronutrients ?

13 What are low sodium and low fat diets ?

14 What happens if blood glucose levels deviate from normal level ?

15 What type of fat has to be included in the diet and what are the dietary sources of fat ?

16 How much time should a person gets exposed to Sun light to obtain the required quantity of vitamin D ?

17 Which vitamin is called koagulation vitamin. Mention the dietary sources ?

(5 × 2 = 10 marks)

C) Short Essay. Answer any *six* questions. 5 marks each :

18 How is normal blood glucose level maintained ? Name the hormones involved in this process.

19 How many amino acids are essential and non-essential ? List them.

20 Write about the classification of lipids with examples.

21 What are the important functions of water ?

22 List out the functions of niacin and the dietary sources.

23 Write on the significance of vitamin B12 for humans.

24 Write a short note on chromium.

25 What are the functions of fluorine ? What happens on deficiency and toxicity of fluorine ?

(6 × 5 = 30 marks)

D) Essay. Answer any *two* questions. 15 marks each :

26 Describe the functions of proteins in human body.

27 Discuss on different forms, functions and dietary sources of vitamin E.

28 Discuss on significance of ascorbic acid.

29 Discuss on significance of zinc.

(2 × 15 = 30 marks)

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

Common Course for L.R.P.

A 14—BANKING AND INSURANCE

(2017 Admissions)

Time : Three Hours   Maximum : 80 Marks

Part A

Answer all questions.
Each question carries 1 mark.

I. Choose the correct answer :

1 Nationalization of 14 commercial banks happened in the year ——————.

  (a) 1969.   (b) 1968.

  (c) 1981.   (d) 1978.

2 Money at call and short notice is also called ——————.

  (a) Capital market.   (b) Inter-bank call money market.

  (c) Financial system.   (d) Stock market.

3 NEFT means :

  (a) Normal Electronic Fund Truncation.

  (b) National Electronic Fund Truncation.

  (c) National Electronic Fund Transfer.

  (d) National Electronic Finance Transfer.

4 Compensation for actual loss suffered is called ——————.

  (a) Reinsurance.   (b) Insurance.

  (c) Indemnity.   (d) Hazard.

5 When an insurer agrees to pay the insured a sum of money on his death or on maturity (whichever is earlier), it is called ——————.

  (a) Endowment life policy.   (b) Health insurance policy.

  (c) Whole life policy.   (d) None of the above.

II. Fill in the blanks :

6 RTGS means ——————.

7 —————— is an instrument in writing containing an unconditional undertaking to pay a sum of money.

Turn over

8 ——————— committee recommended the formation of central bank in 1926.

9 ——————— means writing something on the back of an instrument to transfer the right, title and interest therein to some other person.

10 ——————— insurance provides coverage against the risk of a ship being attacked by enemies

(10 × 1 = 10 marks)

Part B

Answer any **eight** *questions from the following.*
Each question carries 2 marks.

11 Explain agency services of banks with examples.

12 What is a foreign bank ?

13 What is a micro-finance institution ?

14 Who is an insolvent ?

15 Compare NEFT and RTGS.

16 Compare branch banking and unit banking.

17 Compare Repo and Reverse Repo rates.

18 What is moral suasion ?

19 Is life insurance a contract of Indemnity ? Why ?

20 What is reinsurance ?

(8 × 2 = 16 marks)

Part C

Answer any **six** *questions from the following.*
Each question carries 4 marks.

21 Explain EXIM bank. What are its major functions ?

22 Explain briefly the functions of RBI.

23 What are the primary and secondary functions of insurance ?

24 What are the three basic principles of Life insurance ?

25 What are Open market operations of RBI ?

26 What is Cheque Truncation Payment System ?

27 What is a Bill of exchange ? Who can be the parties to it ?

28 What is Noting and Protesting in case of a bill ?

(6 × 4 = 24 marks)

Part D

Answer any **two** *questions from the following.*
Each question carries 15 marks.

29 Explain in detail, the composition of Indian banking system.

30 What are the features of life insurance ? What are the different types of Life Insurance policies ?

31 What is the role of commercial banks in a developing economy ?

(2 × 15 = 30 marks)

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION
APRIL 2021

Common Course For L.R.P.

A 13—ENTREPRENEURSHIP DEVELOPMENT

(2017 Admissions)

(Multiple Choice Questions for SDE Candidates)

Time : 15 Minutes	Total No. of Questions : 20	Maximum : 20 Marks

INSTRUCTIONS TO THE CANDIDATE

1. This Question Paper carries Multiple Choice Questions from 1 to 20.

2. The candidate should check that the question paper supplied to him/her contains all the 20 questions in serial order.

3. Each question is provided with choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and enter it in the main answer-book.

4. The MCQ question paper will be supplied after the completion of the descriptive examination.

A 13—ENTREPRENEURSHIP DEVELOPMENT

(Multiple Choice Questions for SDE Candidates)

1. ——————— is the drive to achieve a goal.

   (A) Motivation.   (B) Need for Achievement.

   (C) Competency.   (D) None of These.

2. ——————— entrepreneurs neither introduce new changes nor adopt new methods innovated by others.

   (A) Technical.   (B) Fabian.

   (C) Induced.   (D) Business.

3. The capacity to develop new ideas, concepts and processes is known as :

   (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) Manager.   (D) Chief executive.

5. A small enterprise is one in which the investment in plant and machinery is more than Rs. ——————But does not exceed Rs. ———————.

   (A) 10 lakhs / 2 crores.   (B) 25 lakhs /5 crores.

   (C) 5 crores/ 10 crores.   (D) 2 crores/5 crores.

6. KITCO was established in———————.

   (A) 1970.   (B) 1973.

   (C) 1972.   (D) 1975.

7. ——————— the process of collection, compilation and analysis of economic data for the purpose of finding out possible opportunities for investment.

   (A) Project screening.   (B) Project appraisal.

   (C) Project identification. (D) None.

8. Project formulation means ———————— Study.

    (A) Profitability.

    (B) Liquidity.

    (C) Feasibility.

    (D) Viability.

9. Critical path is the longest ———————— in the network.

    (A) Slack.

    (B) Activity.

    (C) Event.

    (D) Path.

10. ———————— are activities that must be completed immediately prior to the start of another activity.

    (A) Critical.

    (B) Peceding.

    (C) Succeeding.

    (D) Concurrent.

11. Which of the following is not a phase in the project life cycle :

    (A) Pre-investment phase.

    (B) Construction phase.

    (C) Normalization phase.

    (D) Growth phase.

12. Which of the following is not a network technique :

    (A) CPM.

    (B) PERT.

    (C) SWOT.

    (D) LOB.

13. ———————— shows movement of cash into and out of the firm and its net effect on balance sheet.

    (A) Cash flow.

    (B) Fund flow.

    (C) Ratio.

    (D) Break-even.

14. ———————— is an equilibrium point.

    (A) Cash flow.

    (B) Fund flow.

    (C) Ratio.

    (D) Break-even.

15. The main object of project appraisal is :

    (A) To find whether the project is technically feasible.

    (B) To ascertain whether the project is financially feasible.

    (C) To decide whether to accept or reject a project.

    (D) To know whether the project is eco-friendly.

16. Which one of the following is not a discounted cash flow technique :

    (A) ARR.

    (B) IRR.

    (C) NPV.

    (D) PI.

17. For discounted cash flow methods, the discount rate used is :

    (A) Fixed arbitrarily

    (B) Equivalent to bank rate.

    (C) Equivalent to firm's average cost of capital.

    (D) Equivalent to final rate of dividend.

18. ——————— Skill refers to the ability to understand problems from visible symptoms.

    (A) Diagnostic.

    (B) Conceptual.

    (C) Technical.

    (D) Human relation.

19. Which one of the following is not a function of ED club :

    (A) Organic workshop.

    (B) Interaction with promotional agencies.

    (C) Provide infrastructure.

    (D) Organic industrial visits.

20. ——————— Analysis is concerned with the development of detailed work plan of the project and its time profile.

    (A) Techno-economic.

    (B) Network.

    (C) Financial.

    (D) Social cost-benefit.

Name...

Reg. No..

FOURTH SEMESTER (CUCBCSS—UG) DEGREE EXAMINATION APRIL 2021

Common Course For L.R.P.

A 13—ENTREPRENEURSHIP DEVELOPMENT

(2017 Admissions)

Time : Three Hours   Maximum : 80 Marks

Part A

Answer all questions.
Each question carries 1 mark.

I. Choose the correct answer :

1 ————————— entrepreneurs neither introduce new changes nor adopt new methods innovated by others.

   (a) Technical.   (b) Fabian.

   (c) Induced.   (d) Business.

2 Social attitude is one big problem faced particularly by ————————— Entrepreneur.

   (a) Drone.   (b) Business.

   (c) Women.   (d) Adoptive.

3 ————————— Units provide inputs to other industries.

   (a) Export.   (b) Import.

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

4 The MSME Development Act came into force in the year —————————.

   (a) 2005.   (b) 2016.

   (c) 2006.   (d) None of these.

5 Shortest possible time to complete an activity is —————————.

   (a) Pessimistic time.   (b) Optimistic time.

   (c) Most likely time.   (d) None of these.

II. Fill in the blanks :

6 ———————— shows the movement of cash into and out of the firm and its effect on the balance sheet for a year.

7 A no profit-no loss situation in a firm is called ————————.

8 ———————— is also called Trial and Error method in capital budgeting to estimate the profitability of a project.

9 Line layout is also called ————————.

10. In network ———————— means reducing the time needed to complete an activity.

(10 × 1 = 10 marks)

Part B

Answer any **eight** *questions from the following.*
Each question carries 2 marks.

11 Define Entrepreneur.

12 Hew is innovation related to entrepreneurship.

13 Give a short note on TRYSEM.

14 How does National Small Industries Corporation assist women entrepreneurs ?

15 What is an ancillary unit ?

16 What is the role of Khadi and Village Industries Commission ?

17 Explain bridge finance.

18 Explain Project management.

19 What is factory design ?

20 What is CPM ?

(8 × 2 = 16 marks)

Part C

Answer any **six** *questions from the following.*
Each question carries 4 marks.

21 What are environmental barriers to entrepreneurship ?

22 What are the advantages of industrial estate ?

23 Write a note of Small Industries Development Organization (SIDO) What are its main functions ?

24 What are the factors to be considered when screening project ideas ?

25 What is network analysis ? What are its objectives ?

26 What is project appraisal ? What are its elements ?

27 What are some of the advantages Kerala has for business opportunities ?

28 What is the need for project management ?

(6 × 4 = 24 marks)

Part D

Answer any **two** *questions from the following.*
Each question carries 15 marks.

29 What is an MSME ? What are the steps for starting an MSME ?

30 What is mean by Technical Analysis of a project ? What are the components of the project to be analysed here ?

31 What is working capital ? What factors determine working capital level in a business ? What are the long term sources of Working capital ?

(2 × 15 = 30 marks)

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.

Turn over

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)