Roll No. ....

BBA / B.Com. Semester- I
End – Term Examination, March-April, 2021

Environmental Studies
(BBA 101/ BC 101)

Time: Two Hours
Max. Marks: 70

Note: - Attempt any 4 questions out of 8 selecting one question from each unit. All questions carry equal marks.

UNIT II

Q1   Define Water Pollution. Explain the various sources and effects of water pollution.   (CO2, L2)

Q2   Discuss the composition of atmospher. Explain the causes and effects of ozone depletion.   (CO2, L2)

UNIT III

Q3   Define the meaning of municipal solid waste. Examine the importance of waste disposal   (CO3, L4)

Q4   Write short notes on: (CO3, L4)

    a.   Vermi composting

    b.   Biomedical waste

UNIT IV

Q5   Write short note on :   (CO4 , L6)

    a.   Solar energy

    b.   Wind energy,

    c.   Energy from ocean

Q6 Write short note on : (CO4 , L6)

    a. Energy from biomass,

    b. Geothermal energy

    c. Nuclear energy

UNIT V

Q7 What is rain water harvesting? Explain the need and importance of the same.

(CO5 , L2)

Q8 Discuss the following: (CO5 , L2)

    a. Environmental Protection act-1986

    b. Air (Prevention and control of Pollution) act

    c. wildlife protection act

Roll No. ....

MBA Semester – I
End -Term Examination, March-April, 2021

Management Concepts and Applications
(MBA 102)

Time: Two Hours
Max. Marks: 70

Note: - Section A is compulsory and carries 20 marks of each question. Attempt any two questions from section B, each question carry 15 marks.

Section-A

Q1   Project organisation is not a panacea for overcoming all functional weakness. But it can be great asset to those companies which possess the acumen to exploit its strengths."Explain and indicate the strengths of various project organisation structures and suggest which one is most suitable structure.   (CO2,L2)

Q2   Write short notes on following: (CO2, L2)

    (a) Functions of Management

    (b) Types of Team

    (c) Advantage of E-Mails

    (d) Autocratic Leadership

    (e) Informal Communication

Section-B

Q3   What is meant by Planning? Explain the different types of plans.

(CO2,L2)

Q4   "Decision making is the primary task of the management." Discuss this statement and explain the process of decision making.

(CO3,L2)

Q5   What do you understand by the term Leadership? Discuss different leadership styles?

(CO5,L2)

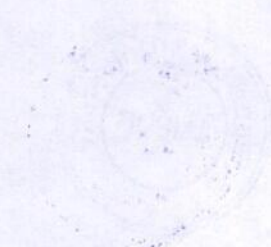Q6   Explain the various forms of communication in detail.   (CO5,L2)

Roll No. ....

B. Sc. (Hons.) Agriculture Semester –I
End Term Examination March-April, 2021

Fundamentals of Horticulture
(AG 101)

Time: Two Hours
Max. Marks: 50

Note: - (1) Attempt any four questions, selecting at least one question from each section. (2) All questions carry equal marks.

Section – A

Q1 Enlist the advantages and disadvantages of sexual and asexual methods of propagation.   [CO1, L1, L4]

लैंगिक प्रवर्धन और अलैंगिक प्रवर्धन की विधियों के लाभ तथा हानियों को सूचीबद्ध कीजिए।

Q2 Define the plant growth regulators and write short notes on any two.   [CO3, L1]

पादप वृद्धि नियामकों को परिभाषित कीजिए और किन्हीं दो पर संक्षिप्त टिप्पणी लिखिए।

Q3 Explain the following points:-   [CO2, L2]

निम्न बिन्दुओं को समझाइये:–

    (i)   Parthenocarpy   (ii)   Juvenility
           अनिषेक जनन   वयस्कता
    (iii)   Pollination
            परागण

Q4 Discuss the different types of planting methods in fruit orchard.

[CO1, L6]

फल उद्यान रोपाई की विभिन्न विधियों पर चर्चा कीजिए।

Section – B

Q5 Explain the different types of budding. [CO1, L2]

कलिकायन की विभिन्न विधियों का वर्णन कीजिए।

Q6 Define the following points in briefly:- [CO2, L1]

निम्न बिन्दुओं पर संक्षिप्त में व्याख्या कीजिए:–

   (i)   Unfruitfulness   (ii)   Seed dormancy
       अफलन   बीज सुसुप्तता

   (iii) Seed Germination
       बीज अंकुरण

Q7 Explain the different types of irrigation methods. [CO3, L2]

सिंचाई की विभिन्न विधियों का वर्णन कीजिए।

Q8 Explain the following points:- [CO2, L2]

निम्न बिन्दुओं को समझाइये:–

   (i)   Pollinators   (ii)   Training
       परागक   संधाई

   (iii) Pruning   (iv)   Fertilization
       छंटाई   निषेचन

Roll No. ....

B. Sc. (PCM) – Semester- I
End – Term Examination, March-April, 2021

Atomic Structure, Bonding, General Organic Chemistry & Aliphatic Hydrocarbons
(BSC 103)

Time: Two Hours

Max. Marks: 70

Note: - (1) Attempt any four questions in all, selecting at least one question from each section. (2) All questions carry equal marks.

Section- A

Q1. (a) Calculate the hybridization for H_2O, PCl_5 and IF_7.   [CO2, L2]
       H_2O, PCl_5 व IF_7 के लिये संक्रमण ज्ञात करें।
     (b) Explain general characteristics of ionic bond.   [CO2, L2]
       आयनिक बंध के सामान्य गुणों को समझाइये।

Q2. Explain about Fajan's rule.   [CO2, L2]
     फैजान नियम को समझाइये।

Q3. Draw the molecular orbital diagram for O_2, O_2^{-2} and NO^+.   [CO2, L3]
     O_2, O_2^{-2} एवं NO^+ के लिये आणविक कक्षक बनाइये।

Q4. Explain R/S and *cis-trans* nomenclature of molecules.   [CO3, L2]
     R/S तथा *cis-trans* योगिकों के नामकरण पद्धति को समझाइये।

Section- B

Q5. Write short note on the following:-   [CO4, L2]
     निम्नलिखित पर संक्षिप्त टिप्पणी लिखिये:-
     (a) Inductive effect   (b) Cleavage of bonds
          प्रेरणीक प्रभाव   बंध विखण्डन
     (c) Huckel's Rule
          हकल का नियम

Q6. Write short note on the following:-   [CO4, L2]
     निम्नलिखित पर संक्षिप्त टिप्पणी लिखिये:-
     (a) Carbocation and carboanion   (b) pK value
          कार्बेधनायन एवं कार्बएनायन   pK मान

Q7. Discuss about:-   [CO5, L2]
     वर्णन करें:-
     (a) Markownikoff's and Anti-Markownikoff's Law
          मारकोनिकॉफ एवं एण्टी–मारकोनिकॉफ नियम
     (b) Saytzeff's rule and Birch reduction reaction
          सत्यजैफ नियम तथा बर्च अपचयन अभिक्रिया

Q8.	Summarize about:-					[CO5, L2]
	संक्षिप्त में वर्णन करें:–
	(a)	Wurtz reaction
		वुर्ट्ज अभिक्रिया
	(b)	Ozonolysis of Alkynes
		एल्काइन का ओजोनलाइसिस

Roll No. ....

B. Ed. – Semester- I
End -Term Examination March-April, 2021

Childhood and Growing Up
(B.Ed. 101)

Time: Two Hours
Max. Marks: 70

Note: - (1) Attempt any four questions in all, selecting at least one question from each section. (2) All questions carry equal marks.

Section- A

Q1. Define the various factors influencing development in brief. [CO2, L1]

विकास को प्रभावित करने वाले विभिन्न कारकों को संक्षेप में स्पष्ट करों।

Q2. Define the Vygotsky's Cognitive development theory in detail. [CO2, L1]

लेव व्योगोटस्की के संज्ञानात्मक विकास के सिद्धान्त को विस्तार से स्पष्ट करों।

Q3. Identify the Characteristics of gifted children. [CO2, L3]

प्रतिभाशाली बालकों की विशेषताओं की पहचान कीजिए।

Q4. Define personality. Explain the projective techniques of personality assessment. [CO2, L1, L2]

व्यक्तित्व की परिभाषा दीजिये। व्यक्तित्व मापन की प्रक्षेपीय विधियों का विवरण दीजिए।

Section- B

Q5. Discuss the factor which effect learning. [CO3, L6]

अधिगम को प्रभावित करने वाले कारकों की व्याख्या कीजिये।

Q6. Identify in brief a;; the three major law of learning propounded by Thorndike. [CO3, L6]

थार्नडाइक द्वारा प्रतिपादित सीखने के तीनों प्रमुख नियमों का संक्षिप्त परिचय दीजिये।

Q7. Identify the types of Intelligence. [CO4, L6]

बुद्धि के प्रकारों को स्पष्ट करों।

Q8. Explain Intelligence and theories of intelligence anyone. [CO1, L2]

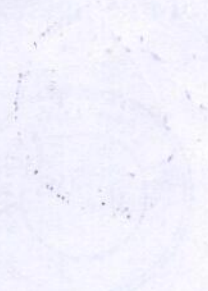बुद्धि का अर्थ बताइये और बुद्धि के किन्हीं एक सिद्धान्त का वर्णन कीजिये।

Roll No. ....

M. Tech. – Semester- I
End – Term Examination, March, 2021

Energy and Environment
(MTCEEV 101)

Time: Two Hours
Max. Marks: 100

Note: - Attempt any four questions. All questions carry equal marks.

Q1 How human development and socio-economic activities are related to energy need?

[CO1, L2]

Q2 State and describe the Linear Programming Models for Designing Environmental Policies.

[CO4, L4]

Q3 What is the different stage of Coal Fuel Chain? How do they affect the local, Regional and Global Environment?

[CO3, L2]

Q4 Describe Clean Combustion Technologies for coal, fuel gas and recirculation.
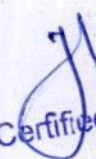
[CO3, L2]

Q5 Analyse Bio Gas and Solar Energy on the basic of Environmental and cost parameters.

[CO5, L1, L2]

Q6 What are the Environmental and Cost benefits of using wind Energy in place of Fossil fuel?

[CO5, L1, L2]

Q7 Write notes on: [CO1, L2]
   i)   Energy conservation technologies.
   ii) National and global energy demand and supply.

Q8 Describe waste recycling and its impact on energy and environment.   [CO2, L2, L4]

Roll No. …………………..

M. Tech. – Semester- I
End – Term Examination, March, 2021

Mathematical Foundations of Computer Science
(MTCSCS 101)

Time: Two Hours
Max. Marks: 100

Note: - Attempt any four questions. All questions carry equal marks.

Q1 (a)   What is central limit theorem explain.

(b)   What is Markov Chains? What are Markov chains are used? How can you tell if a chain is Markov.

[CO1, L2]

Q2   Explain the following terms

(a)   Probability Mass Functions (PMF)

(b)   Cumulative Distribution Functions (CDF)

(c)   Expected Value & Variance

[CO2, L2]

Q3   The interarrival time of vehicles on a certain stretch of a highway is expressed by an Exponential distribution

$$f_T(t) = \frac{1}{\lambda} e^{-\frac{t}{\lambda}}$$

The time between successive arrival of vehicles was observed as 2.2s, 4.0s, 7.3s, 11.1s, 6.2s, 3.4 s, 8.1s.

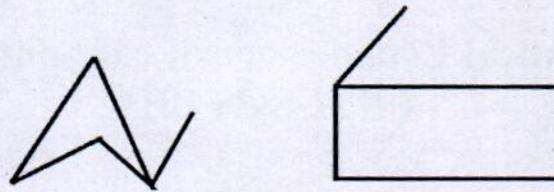Determine the mean inter arrival time λ by the (a) method of moments (b) the maximum likelihood method.

[CO2, L4]

Q4 (a) Define isomorphism between two graphs. Verify whether the following graphs are isomorphic to each other.

    (b) Prove that a graph is an Euler graph if and only if it can be decomposed into circuits

                                                                    [CO3, L2]

Q5 What is data mining? What is the scope of data mining? Explain the different data mining techniques in brief.

                                                                    [CO3, L2]

Q6 (a) Describe frauds of Computer Security.

    (b) What is machine learning? How does machine learning works?

                                                                    [CO4, L2]

Q7 (a) Define the following term:-

    (i)   Plaintext   (ii)   Cipher text

    (iii) Encryption   (iv)   Decryption

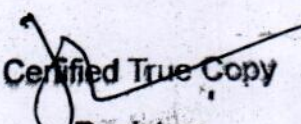   (b) Define term Worm? Why Worms are different from virus?

                                                                    [CO5, L2]

Q8 What is distributed system?

    (a) Categorized the application areas of distributed system.

    (b) Summarize the recent trends in distributed system.

                                                                    [CO5, L2]

Roll No. ....

M. Tech. – Semester- I
End – Term Examination, March, 2021

Computer Aided Process Planning
(MTMEPE 101)

Time: Two Hours
Max. Marks: 100

Note: - Attempt any four questions. All questions carry equal marks.

Q1   What do you understand by process planning? Explain the role of process planning with a case study.

[CO1, L2]

Q2   Explain the structure of automated process planning system.

[CO1, L2]

Q3   Explain the benefits of Generative Capp system based on logical decisions.

[CO2, L1]

Q4   Explain the significance of retrieval type of CAPP system. Also mention the conditions suitable for application of retrieval type of CAPP system.

[CO2, L2]

Q5 What is the necessity of selection of a proper manufacturing sequence? Explain.

[CO3, L2]

Q6 Briefly explain the quantitative methods for optimal selection of manufacturing sequences.

[CO3, L2]

Q7 What are the methods of tolerance allocation? How is the integration of design & manufacturing tolerances performed?

[CO4, L3]

Q8 What are the advantages of integrated approach over sequential approach?

[CO5, L2]

Roll No. ....

B. Arch. – Semester- II
End – Term Examination, July, 2021
Construction Materials-II
(2JAR2)

Time: Two Hours
Max. Marks: 70

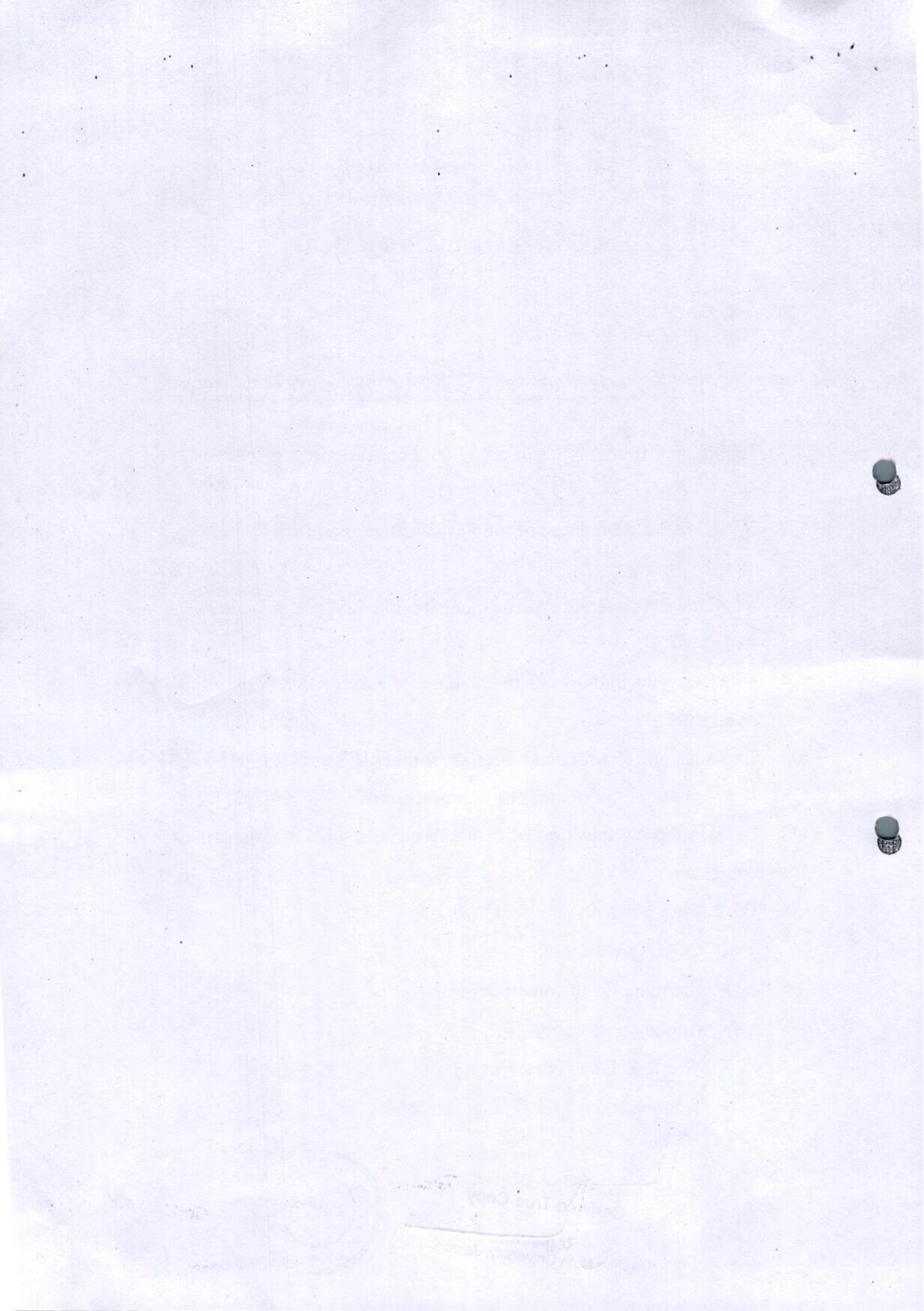**Note: - (1) Attempt any four questions. (2) All questions carry equal marks.**

Q1. Elaborate different types of mud house constructions system?

[CO1, L4]

Q2. What are the advantages of mud as construction material?

[CO3, L2, L3]

Q3. What are the different type of lime classification as per IS code.

[CO4, L2, L3]

Q4. What do you understand by bulking of sand? Give proportion of good sand? [CO2, L2]

Q5. Explain some test for sand. Explain sources of sand? [CO4, L2, L3]

Q6. How is natural hydraulic lime manufactured? [CO2, L2]

Q7. Explain the composition of ordinary cement with function of each constituent. [CO4, L2, L3]

Q8. Write short notes on (any four):

- COB Construction

- Rammed Earth construction

- Adobe construction

- Wattle & Daub construction

- Treatment done for mud construction

[CO5, L4]

Roll No. ....

B. Ed. – Semester- II
End -Term Examination July, 2021

Learning and Teaching
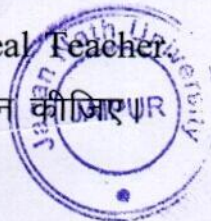## (B.Ed. 201)

Time: Two Hours
Max. Marks: 70

Note: - (1) Attempt any four questions in all, selecting at least one question from each section. (2) All questions carry equal marks.

Section- A

Q1. Explain any five Teaching Maxims. [CO1, L2]

किन्हीं पांच शिक्षण सूत्रों को समझाइए।

Q2. Illustrate the factors of affecting to teaching. [CO2, L2]

अधिगम को प्रभावित करने वाले कारकों की विवेचना कीजिये।

Q3. Analyze the Bloom's Taxonomy of Educational Objectives in Cognitive Domain. [CO2, L4]

ब्लूम के ज्ञानात्मक उद्देश्यों का वर्गीकरण कीजिए।

Q4. What do you understand by the Communication? Explain the types of Communication. [CO3, L1]

सम्प्रेषण से आप क्या समझते है? सम्प्रेषण के प्रकार समझाइए।

Section- B

Q5. What is the role of Brain Storming technique in teaching-learning. [CO4, L5]

मस्तिष्क विप्लव तकनीक की शिक्षण–अधिगम में भूमिका का वर्णन कीजिए।

Q6. Elaborate the role of Internet in teaching-learning. [CO4, L6]

इण्टरनेट की शिक्षण–अधिगम में भूमिका स्पष्ट कीजिए।

Q7. Identify the need of professional Enrichment of teachers. [CO5, L3]

शिक्षकों की व्यावसायिक समृद्धि की आवश्यकता को स्पष्ट कीजिए।

Q8. Describe the qualities of an Ideal Teacher. [CO5, L2]

एक आदर्श शिक्षक के गुणों का वर्णन कीजिए।

Roll No. ....:

BBA / B.Com. Semester- II
End – Term Examination, July, 2021

Disaster Management
(BBA 201/ BC 201)

Time: Two Hours
Max. Marks: 70

Note: - (1) Attempt any four questions, selecting at least one question from each Section. (2) All questions carry equal marks.

Section-A

Q1 Define 'Disaster'. Classify various disasters .Also discuss how man is responsible for disasters. (CO1, L1)

Q2 What do you understand by term 'Disaster'? How it different from Hazard? Also differentiate between Natural and Man-made Disaster.

(CO1, L2)

Q3 What is Cyclone? Identify the causes, consequences and impact of Cyclone.

(CO2, L2)

Q4 Explain the characteristics of a Tsunami. Identify the possible risk reduction measures for Tsunami Waves. (CO2, L2)

Q5 What do you mean by Epidemic? Suggest Preventive measures taken up to Prevent severe damage. (CO3, L2)

Q6 What Relief works that have to be carried out to save the lives of workers when the Factory area is suddenly affected by a dangerous gas leak.

(CO3, L2)

Section-B

Q7   What do you understand by disaster management Cycle? Discuss each components of Disaster management Cycle in detail.   (CO4, L2)

Q8   Discuss Do's and Don'ts to be followed during Fire and Drought?

    (Co4, L2)

Q9   Write short note on "Different components of Disaster Relief for Rehabilitation of Society ".   (Co5, L2)

Q10   What do you mean by Earthquake. Suggest some Mitigation Strategies to reduce economic damage.   (CO2, L2)

Roll No...........................

Bachelor of Physiotherapy 1st Year
End – Term Examination, July-August, 2021
Anatomy
(BPT 101)

Time: 2 Hours
Max. Marks: 70

Note: - (i) Section-A – Attempt any 5 Questions carrying 8 marks each.
(ii) Section-B – Attempt any 2 Questions carrying 15 marks each.

SECTION- A

Short Essay: (5x8)

Q1   Describe The Boundaries & Content of Cubital Fossa.   (CO1,L2)

Q2   Classify Bone According to their Shapes & Give one example of each.

(CO2,L2)

Q3   Describe In Detail Femoral Triangle.   (CO1,L2)

Q4   Superficial Palmar Arch.   (CO4,L2)

Q5   Structures Passing through Thoracic Inlet.   (CO4,L2)

Q6   Typical Intercostal Nerve.   (CO2,L2)

Q7   Classify the Fibrous Joint with one Example of each.   (CO1,L2)

Q8   Describe the Anatomy of Heart under:-   (CO1,L2)

(a)   Apex of Heart   (b)   Base of Heart

(c)   Surfaces of Heart   (d)   Borders of Heart

Q9   Describe the Sciatic Nerve under following Headings: (CO1,L2)

(a)   Origin   (b)   Course

(c)   Branches   (d)   Clinical Applied

Q10 Boundaries & Contents of Superior Mediastinum.   (CO1,L2)

SECTION- B

Long Essay: (2x15)

Q.1   Describe the Elbow joint under following headings: (CO1,L2)

    (a)   Types & variety   (b)   Articular surface

    (c)   Ligaments   (d)   Movements

Q.2   Write Origin, Insertion, Nerve supply &Action of :   (CO4,L2)

    (A)   Brachialis   (B)   Sartorius

    (C)   External intercostal   (D)   Biceps femoris

Q.3   Describe the Great saphenous vein under following headings: (CO1,L2)

    (a)   Formation   (b)   Course

    (c)   Termination   (d)   Tributaries

Q.4   Describe in details brachial plexus under following headings: (CO1,L2)

    (a)   Formation   (b)   Cord

    (c)   Branches   (d)   Applied

Roll No. ....

B. Sc. (PCM) Semester –II
End Term Examination August, 2021

Electricity, Magnetism and EMT
(BSC 202)

Time: Two Hours
Max. Marks: 70

Note: - (1) Attempt any four questions, selecting at least one question from each section. (2) All questions carry equal marks.

Section–A

Q1. (a) What do you mean by Gradient of scalar function? Examine gradient of a scalar function in Cartesian coordinates.

(अ) अदिश फलन की प्रवणता से आप क्या समझते है? कार्तीय निर्देशांकों में अदिश फलन की प्रवणता का परीक्षण कीजिए। [CO3, L4]

(b) What do you mean by line integral of vector field? Explain line integral of vector field.

(ब) सदिश क्षेत्र के रेखीय समाकलन से आप क्या समझते है? विद्युत क्षेत्र के रेखीय समाकलन की व्याख्या कीजिए। [CO1, L5]

Q2. (a) State and explain Gauss divergence theorem.

(अ) गाउस की डाइवर्जेन्स प्रमेय का कथन लिखिए तथा व्याख्या कीजिए। [CO1, L5]

(b) What do you mean by divergence of a vector field? Write its physical significance.

(ब) सदिश क्षेत्र के अपसरण से आप क्या समझते है? इसका भौतिक महत्त्व लिखिए।

[CO3, L1]

Q3. (a) Deduce integral and differential form of Gauss law.

(अ) गाउस नियम का समाकल व अवकल स्वरूप का निगमन कीजिए। [CO1, L5]

(b) Find an expression for potential energy due to a continuous charge distribution.

(ब) सतत् आवेशों के वितरण के कारण स्थितिज ऊर्जा का व्यंजक ज्ञात कीजिए।

[CO2, L1]

Q4. (a) What is dipole moment? Calculate electric potential due to a dipole.

(अ) द्विध्रुव आघूर्ण क्या है? द्विध्रुव के कारण उत्पन्न वैद्युत विभग की गणना कीजिए।

[CO4, L4]

(b) Find an expression for electric potential due to uniformly charged spherical shell.

(ब) समरूप आवेशित गोलीय कोश के कारण विद्युत विभव के लिए व्यंजक ज्ञात कीजिए।

[CO2, L7]

Section–B

Q5. (a) Discuss electric field due to a charge placed in dielectric medium.

(अ) परावैद्युत माध्यम में स्थित आवेश के कारण विद्युत क्षेत्र की विवेचना कीजिए।

[CO3, L4]

(b) Explain electric displacement vector and electric susceptibility.

(ब) विद्युत विस्थापन सदिश तथा विद्युत प्रवृत्ति की व्याख्या कीजिए।   [CO3, L2]

Q6. (a) Find an expression for capacity of a capacitor filled with a dielectric.

(अ) परावैद्युत माध्यम से भरे संधारित्र की धारिता के लिए व्यंजक ज्ञात कीजिए।

[CO2, L1]

(b) What is dielectric medium? Classify between insulator and dielectrics.

(ब) परावैद्युत माध्यम क्या है? कुचालक तथा परावैद्युत पदार्थों में अंतर कीजिए।

[CO3, L4]

Q7. (a) What do you mean by magnetic vector potential? Derive Poisson's equations for vector potential.

(अ) चुम्बकीय सदिश विभव से आप क्या समझते है? चुम्बकीय सदिश विभव के लिए पॉयसन समीकरण का निगमन कीजिए।   [CO4, L3]

(b) Find relation between magnetic susceptibility and magnetic permeability.

(ब) चुम्बकीय प्रवृत्ति तथा चुम्बकीय पारगाम्यता में सम्बन्ध ज्ञात कीजिए।   [CO4, L1]

Q8. (a) State Ampere's law. Explain Ampere's law in differential form.

(अ) ऐम्पियर के नियम का कथन लिखिए। ऐम्पियर के नियम के अवकल रूप की व्याख्या कीजिए।

[CO1, L5]

(b) What is electron spin? Discuss magnetic moment.

(ब) इलेक्ट्रॉन प्रचक्रण क्या है? चुम्बकीय आर्घूण की विवेचना कीजिए। [CO3, L4]

Roll No. ....   (Main/Due)

LLM Semester- II
End – Term Examination, July, 2021

International Trade Law
(LLM 201A)

Time: Two Hours
Max. Marks: 100

Note: - (1) Attempt four questions in all, selecting at least one question from each unit.
(2) All questions carry equal marks.

Unit-I

Q1. Write meaning and nature of International Trade Law.

[CO1, L2]

Q2. Elucidate advantages and disadvantages of International Trade law.

[CO1, L2]

Unit-II

Q3. Describe salient features of GATT.   [CO2, L3]

Q4. Write a detailed note on Agreement of subsidies and countervailing

measures.   [CO2, L3]

Unit-III

Q5. Elucidate agreement on Anti-Dumping measures.   [CO3, L2]

Q6. Describe agreement on Trade related aspects of International Property

Right? (TRIPS).   [CO4, L3]

Unit-IV

Q7. Elucidate Trade and Environment issues in WTO.   [CO5, L2]

Q8. Describe Sanitary and Phyto-sanitary measures in WTO.

[CO5, L2]

Roll No. ....

M. Tech. – Semester- II
End – Term Examination, July, 2021

Design of Advanced Concrete Structures
(MTCESE 204A)

Time: Two Hours
Max. Marks: 100

Note: - Attempt any four questions. All questions carry equal marks.

Q1   Explain:
   (i)   What are the factors affecting crack width in beams?
   (ii)   What are advantages and disadvantages of flat slab?
   (iii)   What are short term and long term deflections? What is the deflection due to shrinkage? Write down the expression for the same.

[CO5, L2]

Q2   Design a circular slab of 3.5m diameter to cover an underground sump. The slab is simply supported at the periphery by a 200mm thick wall. Assume a finish load of 1.0 KN/m². Use M20 concrete Fe 415 steel. Assume mild exposure conditions.

[CO1, L1]

Q3   The following are the details of a internal beam column of type 1 joint subjected to reversals which are not due to earth quake.
   (i) Column 600x600 mm with 8 nos – 25 mm dia bars. Column factored load = 1400 kN. Storey height = 3m.
   (ii) Beams on either side are 400x500mm with 3 nos. of 28mm dia (1846 mm²) on the top and 3 nos of 25mm dia (1473 mm²) at bottom. Assuming fck = 25kN/mm² and fy = 415N/mm² design the joint.

[CO2, L1, L2]

Q4   (a) What are the design rules to be applied to concrete members under fire test under ISO 834 with respect to the following:
   (i)   Cover to steel
   (ii)   Size of members (minimum thickness for a given fire rating)
   (iii)   Other factors like detailing practice.

(b)	What are the devices used to improve the ductility performance with seismic loading. Also mention the methods used for achieving these objectives as laid in IS – 13920.

[CO5, L2]

Q5	(a) What is the assumption made in theory of yield lines?
(b) Derive the expression relating yield line moment and ultimate load intensity for the square isotropically reinforced slab simply supported all around.

[CO1, L1]

Q6	(a) Explain shear wall.
(b) Explain braced wall and unbraced wall

[CO3, L2]

Q7	(a) What are the various steps involved in the design of cast-in-situ joint in frames.
(b)What are the factors that influence fire resistance rating of reinforced concrete members?

[CO4, L2]

Q8	Explain design for serviceability limit states and also discuss deflection calculation.

[CO2, L1, L2]

Roll No.....................

MBA Semester – II
End -Term Examination, July, 2021
Indian Economy and Policy
(MBA 201)

Time: Two Hours
Max. Marks: 70

Note: - (i) Section-A is compulsory and each question carries 20 marks.
(ii) Section-B: Attempt any 2 questions and each question carries 15 marks.

Section-A

Q.1   Make a brief note in detail (any five) :   (CO1, L3)

    (a)   Human Development

    (b)   Social Infrastructure

    (c)   Economic Infrastructure

    (d)   Causes of Poverty

    (e)   Balanced Regional Development

    (f)   Social Inclusion

Case Study: (CO3, L4)

Q.2   In Germany in 2009 there was considerable debate about the extent to which the government should be intervening in the economy. For example, its citizens were worried about the future of Opel, a German car brand that was part of the ailing General Motors. Some wanted the government to make sure jobs were saved no matter what. Others, however, were more hesitant and worried about becoming the government becoming too interventionist. Traditionally since the Second World War the German government has seen itself as a referee in market issues and has avoided trying to control parts of the economy. It would regulate anti-competitive behaviour, for example, but not try to run many industries. However in the recession of 2009 when the economy was shrinking the government was forced to spend more to

stimulate demand and had to intervene heavily to save the banking sector from collapse. The government also had to offer aid to businesses to keep them alive.

Questions :

(a) What are the possible benefits of a government intervening in an economy?

(b) What are the arguments against government intervention in an economy?

(c) What prompted greater intervention by the German government in 2009?

(d) What would determine whether the German continued to intervene on this scale in the future?

Section-B

Q.3 Show the basic characteristics of Indian Economy in detail.   (CO1, L3)

Q.4 Classify the types of Unemployment in India.   (CO2, L4)

Q.5 Critically Analyze the objectives of economic planning in India. How well has the Indian economy performed to achieve these objectives?

(CO3, L4)

Q.6 Analyze the role of Public sector in India. Also evaluate the performance and shortcomings of public sector in India.   (CO4, L4)

Q.7 Investigate the reasons for Black money in India.   (CO2, L4)

Q.8 Describe in detail :   (CO5, L2)

(a) WTO

(b) MDG & SDG

B. Sc. (Hons.) Agriculture Semester –II
End Term Examination August, 2021

Fundamentals of Genetics
(AG 201)

Time: Two Hours
Max. Marks: 50

Note: - (1) Attempt any four questions, selecting at least one question from each section.
(2) All questions carry equal marks.

Section – A

Q1 Write the short note on following:-   [CO1, L2]

निम्नलिखित पर संक्षिप्त टिप्पणी लिखिए:-

  (i) Synaptonemal Complex

    सिनेप्टोनमल कॉम्प्लेक्स

  (ii) Polyploid

    बहुगुणित

  (iii) Characteristics of multiple allele

    बहुविकल्पी के गुण

  (iv) Linkage

    सहलग्नता

Q2 Differentiate between followings:-   [CO3, L4]

निम्नलिखित में अन्तर लिखिए:-

  (i) Crossing over and Translocation

    विनिमय तथा स्थानान्तरण

  (ii) Euchromatin and Heterochromatin

    यूक्रोमेटिन तथा हैटरोक्रोमेटिन

  (iii) Heterozygous and Homozygous

    विषमयुग्मी तथा समयुग्मी

Q3 Define the followings:- [CO3, L4]

निम्नलिखित को परिभाषित कीजिए:-

(i) Gene
जीन

(ii) Double Trisomy
द्वि-एकाधिसूत्री

(iii) Alleles
एलिल्स

(iv) Test Cross
टेस्ट क्रॉस

(v) RNA primer
आर.एन.ए. प्राइमर

Q4 Describe the Mendel's law of inheritance. [CO3, L1]

मेंडल के वंशानुगत के नियमों का वर्णन कीजिए।

Section – B

Q5 Define the followings:- [CO3, L4]

निम्नलिखित को परिभाषित कीजिए:-

(i) Nullysomy
द्विन्यूनसूत्रता

(ii) Trihybrid cross
त्रिसंकर संकरण

(iii) Epistatic gene
अधिस्थायी जीन

(iv) Back cross
प्रतीप संकरण

(v) Plasma gene
प्लाज्मा जीन

Q6 Differentiate between followings:- [CO3, L4]

निम्नलिखित में अन्तर लिखिए:-

(i) Sex linked characters and sex limited characters
लिंग सहलग्न लक्षण व लिंग सीमित लक्षण

(ii) Cytoplasmic inheritance and Mendelian inheritance
कोशिकाद्रव्यी वंशानुगति तथा मेंडेलियन वंशानुगति

(iii) Quantitative traits and Qualitative traits
मात्रात्मक लक्षण तथा गुणात्मक लक्षण

Q7 Write the short note on following:- [CO1, L2]

निम्नलिखित पर संक्षिप्त टिप्पणी लिखिए:-

(i) Meiosis cell division
अर्द्धसूत्री कोशिका विभाजन

(ii) DNA replication
डी.एन.ए. प्रतिकृति

(iii) RNA and its features
आर.एन.ए. व इसके लक्षण

(iv) Gene interaction
जीनअन्योन्यक्रिया

Q8 What is transcription? Describe the process of protein synthesis. [CO3, L1]

अनुलेखन क्या है? प्रोटीन संश्लेषण की प्रक्रिया का वर्णन कीजिए।