

B.L.D.E.A's V.P. Dr. P.G. Halakatti College of Engineering and Technology
Vijyapur-586103

Common Subjects

Question Papers Dec.2024/Jan.2025

S.N.	SUBCODE	SUBJECT	PAGE NO.
01	18CPC39/49	Constitution of India, Professional Ethics and Cyber Law (Common To All Branches)	01-10
02	21AD62	Data Science and its Application	11-12
03	21BE45	Biology for Engineers	13-14
04	21RMI56	Research Methodology and Intellectual Property Rights	62-63
05	21UH49	Universal Human Valuesand Professional Ethics	64-67
06	BAD402	Artificial Intelligence	68-70
07	BBOK407	Biology for Engineers	71-72
08	BESK508	Environmental Studies (Ver-ABCD)	73-88
09	BRMK557	Research Methodology and IPR	89-90
10	BUHK408	Universal Human Values Course (Ver-ABCD)	91-106

[illegible]

Third/Fourth Semester B.E Degree Examination, Dec.2024/Jan.2025
Constitution of India, Professional Ethics and Cyber Law
(COMMON TO ALL BRANCHES)

Time: 2 hrs.]

[Max. Marks: 100]

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the hundred questions, each question carries **ONE mark**.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

1. When was the Constituent Assembly of India formed?
a) 1942
b) 1946
c) 1947
d) 1949
2. Who was the Chairman of the Drafting Committee of the Indian Constitution?
a) Jawaharlal Nehru
b) Sardar Vallabhbhai Patel
c) Dr. B. R. Ambedkar
d) Rajendra Prasad
3. Which of the following is not a feature of the Indian Constitution?
a) Federalism
b) Parliamentary System
c) Secularism
d) Unitary System of Government
4. Which of the following is a unique feature of the Indian Constitution?
a) It provides for a federal system with a strong central government.
b) It is rigid in nature.
c) It establishes a unitary form of government.
d) It does not have provisions for a written Bill of Rights.
5. Which part of the Indian Constitution is most comprehensive and elaborate?
a) Part III (Fundamental Rights)
b) Part IV (Directive Principles of State Policy)
c) Part V (Union Executive)
d) Part I (Union and Territory)

6. The preamble of the Indian Constitution begins with the words:
a) We the People of India b) In the Name of God
c) India is a Sovereign State d) We the People of the World
7. The word 'Secular' was added to the Preamble of the Indian Constitution by which amendment?
a) 42nd Amendment b) 44th Amendment
c) 52nd Amendment d) 86th Amendment
8. Which of the following is not mentioned in the Preamble of the Indian Constitution?
a) Sovereign b) Socialist
c) Republic d) Democratic
9. The Preamble of the Indian Constitution declares India as a :
a) Sovereign, Socialist, Secular, Democratic Republic
b) Sovereign, Democratic Republic
c) Socialist Republic
d) Secular Democratic Republic
10. What is the primary purpose of the Preamble to the Indian Constitution?
a) To specify the powers of government institutions.
b) To establish the identity and values of the Indian State.
c) To outline the duties of citizens.
d) To provide a roadmap for amending the Constitution.
11. The Fundamental Rights are enshrined in which part of the Indian Constitution?
a) Part III b) Part IV
c) Part V d) Part II
12. Which of the following is not a Fundamental Right?
a) Right of Equality b) Right of Freedom
c) Right against Exploitation d) Right to Property
13. The Right to Education was made a Fundamental Right under which amendment?
a) 86th Amendment b) 92nd Amendment
c) 44th Amendment d) 93rd Amendment
14. Which article of the Indian Constitution guarantees the Right to Equality?
a) Article 14 b) Article 15
c) Article 16 d) Article 19
15. The Right to Freedom of Speech and Expression is provided under which article of the Indian Constitution?
a) Article 16 b) Article 17
c) Article 19 d) Article 21

16. The Fundamental Duties are mentioned in which part of the Indian Constitution?
a) Part III
b) Part IV
c) Part IV-A
d) Part II
17. Which of the following is a Fundamental Duty of an Indian citizen?
a) To pay taxes
b) To protect public property
c) To vote in elections
d) To follow the orders of the government
18. The Fundamental Duties were added to the Constitution by which Amendment?
a) 42nd Amendment
b) 44th Amendment
c) 52nd Amendment
d) 86th Amendment
19. Which of the following is NOT a Fundamental Duty under the Constitution?
a) To preserve the rich heritage of our culture.
b) To defend the country and render national service when called upon.
c) To abide by the laws of the land.
d) To provide free education to all children.
20. The Directive Principles of State Policy are mentioned in which part of the Indian Constitution?
a) Part II
b) Part III
c) Part IV
d) Part V
21. The Directive Principles of State Policy are:
a) Justiciable
b) Non-justiciable
c) Enforceable in a court of law
d) Part of Fundamental Rights
22. Which of the following is an example of a Directive Principle of State Policy?
a) Right to Equality
b) Right to Education
c) Uniform Civil Code
d) Right to Freedom of Religion
23. Which article of the Indian Constitution deals with the promotion of welfare of the people?
a) Article 38
b) Article 39
c) Article 40
d) Article 41
24. Which of the following Directive Principles promotes the establishment of a welfare state?
a) Article 36
b) Article 39
c) Article 40
d) Article 41
25. The provision for a Uniform Civil Code is a part of which Directive Principle of State Policy?
a) Article 44
b) Article 45
c) Article 46
d) Article 47
26. Who is the head of the Union Executive in India?
a) Prime Minister
b) President
c) Vice President
d) Lok Sabha Speaker

27. Who appoints the Prime Minister of India?
 a) President
 b) Lok Sabha
 c) Rajya Sabha
 d) The people of India
28. The Union Executive in India consists of :
 a) President, Vice President, and Lok Sabha
 b) President, Prime Minister and Council of Ministers
 c) President, Prime Minister and Judges of the Supreme Court
 d) President, Speaker of Lok Sabha and Cabinet Ministers
29. Who is responsible for the formation of the Cabinet in India?
 a) President
 b) Vice President
 c) Prime Minister
 d) Lok Sabha
30. Who was the first President of India?
 a) Dr. Rajendra Prasad
 b) Dr. Sarvepalli Radhakrishnan
 c) Dr. Zakir Husain
 d) Jawaharlal Nehru
31. The President of India is elected by an electoral college consisting of :
 a) Only Members of Parliament
 b) Only State Legislators
 c) Members of Parliament and Members of State Legislative Assemblies
 d) Judges of the Supreme Court
32. What is the maximum term duration for the President of India?
 a) 4 years
 b) 5 years
 c) 6 years
 d) 7 years
33. The President of India can be removed from office by :
 a) Impeachment
 b) Resignation
 c) Decision of the Supreme Court
 d) Vote of no confidence in Parliament
34. Under which Article of the Indian Constitution can the President of India dissolve the Lok Sabha?
 a) Article 74
 b) Article 85
 c) Article 88
 d) Article 356
35. In case of a vacancy in the office of the President, who acts as the President?
 a) Chief Justice of India
 b) Vice President
 c) Speaker of Lok Sabha
 d) Governor of a State
36. Who was the first Vice President of India?
 a) Dr. Sarvepalli Radhakrishnan
 b) Dr. Zakir Husain
 c) Jawaharlal Nehru
 d) S. Radhakrishnan
37. The Vice President of India is elected by :
 a) Parliament
 b) The People of India
 c) Members of Lok Sabha
 d) The President

50. Who is the ex-officio Chairman of the Rajya Sabha?
 a) Prime Minister
 b) Vice President
 c) President
 d) Speaker of Lok Sabha
51. The Parliament of India consists of:
 a) Lok Sabha, Rajya Sabha and President
 b) President, Chief Justice and Prime Minister
 c) Lok Sabha, Rajya Sabha and Council of Ministers
 d) Lok Sabha, Rajya Sabha and Attorney General.
52. The Parliament of India can make laws on subjects mentioned in :
 a) Union List
 b) Concurrent List
 c) State List
 d) Both Union and Concurrent Lists
53. Who can dissolve the Lok Sabha?
 a) Rajya Sabha
 b) President
 c) Prime Minister
 d) Speaker of Lok Sabha
54. Who appoints the Chief Justice of India?
 a) President
 b) Parliament
 c) Lok Sabha
 d) Prime Minister
55. Who heads the State Executive in India?
 a) Governor
 b) Chief Minister
 c) President
 d) Prime Minister
56. The State Executive consists of :
 a) Governor, Chief Minister and Council of Ministers
 b) President, Chief Minister and Governor
 c) Chief Justice of the State, Chief Minister and Governor
 d) President, Council of Ministers and Speaker
57. The Governor of a state is appointed by :
 a) Chief Minister
 b) President
 c) State Legislature
 d) Lok Sabha
58. The terms of office of a Governor is:
 a) 5 years
 b) 6 years
 c) 3 years
 d) 4 years
59. In case of a vacancy in the office of the Governor, who is the acting Governor?
 a) Chief Minister
 b) President
 c) Vice President
 d) President appoints an acting Governor
60. Who is the first Governor-General of Independent India?
 a) Jawaharlal Nehru
 b) Lord Mountbatten
 c) Dr. Rajendra Prasad
 d) C. Rajagopalachari

61. Which of the following is not a power of the Governor?
a) Appointing the Chief Minister
b) Dissolving the State Legislative Assembly
c) Making laws by ordinance
d) Deciding the salary of the Chief Minister
62. The Governor's decision on the dissolution of the State Legislative Assembly can be challenged in :
a) High Court
b) Supreme Court
c) Lok Sabha
d) Rajya Sabha
63. The Chief Minister of a state is appointed by :
a) Governor
b) President
c) Chief Justice of India
d) Speaker of the State Legislative Assembly
64. The Chief Minister is the head of:
a) Executive
b) Legislature
c) Judiciary
d) Council of Ministers
65. The Chief Minister's term is :
a) 5 years
b) 6 years
c) 4 years
d) No fixed term
66. The resignation of the Chief Minister must be addressed to :
a) Governor
b) President
c) Chief Justice of India
d) Speaker of State Legislative Assembly
67. The State Legislature in India consists of which two houses in a bicameral legislature?
a) Lok Sabha and Rajya Sabha
b) Rajya Sabha and Legislative Assembly
c) Legislative Assembly and Legislative Council
d) Lok Sabha and legislative Assembly
68. Which of the following states does not have a Legislative Council?
a) Bihar
b) Karnataka
c) Tamil Nadu
d) Uttar Pradesh
69. The State Legislative Assembly is also known as the :
a) Upper House
b) Lower House
c) National Assembly
d) Parliament
70. Which article of the Indian Constitution gives the President the power to declare a National Emergency?
a) Article 352
b) Article 356
c) Article 360
d) Article 368

71. The proclamation of emergency must be approved by Parliament within:
a) 1 month
b) 2 months
c) 3 months
d) 6 months
72. Under which article of the Indian Constitution can the President declare a State Emergency (President's Rule) in a State?
a) Article 352
b) Article 356
c) Article 360
d) Article 368
73. In a Financial Emergency, the President can take measures under which article?
a) Article 352
b) Article 360
c) Article 356
d) Article 368
74. During a National Emergency, which of the following rights can be suspended?
a) Right to Equality
b) Right to Freedom
c) Right to Property
d) Right against Exploitation
75. Which of the following articles of the Indian Constitution lays down the procedure for its amendment?
a) Article 352
b) Article 368
c) Article 356
d) Article 360
76. Which of the following is required for an amendment to the Indian Constitution?
a) Only the President's approval
b) A resolution by both houses of Parliament
c) A referendum of the people
d) A decree by the Prime Minister
77. A Constitutional amendment affecting the federal structure requires the ratification of :
a) Parliament
b) All States
c) Half of the States
d) President
78. What is the minimum number of states whose consent is required for amending the Constitution under Article 368?
a) One-third of the states
b) Half of the states
c) Majority of the states
d) None of these
79. Which of the following cannot be amended by Parliament under Article 368?
a) Fundamental Rights
b) Directive Principles
c) Election of the President
d) Creation of new states
80. The First Amendment to the Indian Constitution was passed in:
a) 1950
b) 1951
c) 1952
d) 1956
81. Which of the following is a primary principle of professional ethics?
a) Profit maximization
b) Honesty and integrity
c) Personal interests over professional duties
d) Avoiding responsibility

82. Which document provides guidelines for ethical conduct in a professional environment?
- a) Code of Conduct
 - b) Employee Handbook
 - c) Personal Mission Statement
 - d) Annual Report
83. A professional must avoid conflicts of interest. This is an example of:
- a) Corporate Social Responsibility
 - b) Professional Ethics
 - c) Business Marketing
 - d) Intellectual Property Law.
84. What is the main goal of professional ethics?
- a) To maximize profits
 - b) To ensue fair and just conduct in the profession
 - c) To support personal interests
 - d) To focus only on clients needs
85. If an employee witnesses unethical behavior by a colleague, they should:
- a) Ignore the behavior
 - b) Report the behavior to the appropriate authority
 - c) Join in the behavior to avoid conflict
 - d) Discuss the behavior with other employees
86. Which of the following is a fundamental aspect of engineering ethics?
- a) Innovation at any cost
 - b) Confidentiality and Transparency
 - c) Prioritizing the employers needs above public safety
 - d) Avoiding safety regulations to save money
87. Which of the following is a responsibility of engineers under ethical guidelines?
- a) Making the maximum profit for their employer
 - b) Safeguarding public safety, health, and welfare
 - c) Withholding information to benefit their employer
 - d) Ignoring environmental regulations for expediency
88. According to the Code of Ethics for engineers, which of the following should an engineer do when they observe a safety hazard in a project?
- a) Ignore it, as long as it does not impact their work directly
 - b) Report the hazard to the appropriate authorities and seek corrective measures
 - c) Delay reporting until the projects is completed
 - d) Keep the safety hazard confidential to avoid embarrassment to the project team
89. What is the main reason engineers are expected to adhere to ethical standards?
- a) To achieve personal career advancement
 - b) To avoid legal repercussions
 - c) To maintain public trust and ensure safety
 - d) To comply with company regulations
90. Which of the following is considered unethical behavior for an engineer?
- a) Reporting a potential risk to public safety
 - b) Overstating qualifications or work experience
 - c) Offering a better solution for the client
 - d) ensuring a project meets environmental standards

10 of 10

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

21AD62

Sixth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 Data Science and its Application

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is Data Science? Explain Matplotlib with bar chart, line chart and scatter plot. (10 Marks)
- b. Explain about linear algebra. (10 Marks)

OR

- 2 a. Explain probability with conditional probability and Baye's theorem. (10 Marks)
- b. Explain continuous distributions and normal distribution with code. (10 Marks)

Module-2

- 3 a. Explain statistical Hypothesis testing with example : flipping a coin. (10 Marks)
- b. What is gradient descent? Explain the idea behind gradient descent and estimating the gradient. (10 Marks)

OR

- 4 a. What are the different ways of reading files? Explain. (10 Marks)
- b. Explain how will you explore your data with one, two and many dimensions. (10 Marks)

Module-3

- 5 a. Define machine learning and explain with code:
 - i) Over-fitting
 - ii) Under fitting
 - iii) Correctness. (10 Marks)
- b. What is K-nearest Neighbors? Explain the model with example : Favorite Languages with code. (10 Marks)

OR

- 6 a. Explain Naïve Bayes with implementation and testing our model with code. (10 Marks)
- b. Explain the model of simple linear regression and using gradient descent with code. (10 Marks)

Module-4

- 7 a. What is a decision tree? Explain creating a decision tree and the entropy of a partition. (10 Marks)
- b. What is Neural networks? Explain :
 - i) Feed – Forward Neural Networks
 - ii) Back propagation. (10 Marks)

OR

- 8 a. Explain deep learning with tensor and Neural Networks as a sequence of Layers. (10 Marks)
- b. What is clustering? Explain the idea and clustering model with example : clustering colors. (10 Marks)

Module-5

- 9 a. What is Natural language processing? Explain :
i) Word clouds
ii) n-Gram language models
iii) Grammars. (10 Marks)
b. Explain Eigenvector centrality with matrix multiplication and centrality with code. (10 Marks)

OR

- 10 a. What is recurrent neural networks with example using a character –level RNN, explain with code. (10 Marks)
b. Explain recommender systems with user – based collaborative filtering with code. (10 Marks)

* * * * *

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

21BE45

Fourth Semester B.E. Degree Examination, June/July 2024

Biology for Engineers

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain the classification of carbohydrates with examples. (06 Marks)
- b. Explain the working of DNA finger printing for forensic applications. (06 Marks)
- c. Discuss the benefits and uses of plant based proteins as alternatives to animal based proteins. (08 Marks)

OR

- 2 a. Discuss the key features of RNA vaccine for COVID-19 with examples. (06 Marks)
- b. Elucidate the process of obtaining bio-diesel from lipids. Discuss any four advantages of bio-diesel? (08 Marks)
- c. Explain the role of glucose-oxidase enzyme in biosensors and lignolytic enzyme in bio-bleaching. (06 Marks)

Module-2

- 3 a. Compare and list the salient features of human brain as CPU of a computer and discuss their architectures using suitable diagrams. (08 Marks)
- b. Explain the term cataract giving reasons for its cause and symptoms? What is the solution to overcome the same? List any two lens materials in use? (04 Marks)
- c. Using relevant diagram describe the electrical signaling of the human heart and it's monitoring in the ECG trace. (08 Marks)

OR

- 4 a. Compare and explain the similarities between the working of human eye with that of a camera, using suitable diagrams. (08 Marks)
- b. Explain the term electro encephalography (EEG)? Discuss any four engineering solutions for Parkinson's disease. (07 Marks)
- c. Discuss the design features of stent. (05 Marks)

Module-3

- 5 a. Using the architecture diagram, explain the mechanism of purification of air in lungs and the exchange of O₂, CO₂ gases. (08 Marks)
- b. Discuss the causes, symptoms and treatment options for chronic kidney disease (CKD). (06 Marks)
- c. Using the architecture diagram, explain the working of skeletal muscle. (06 Marks)

OR

- 6 a. Describe the term Chronic Obstructive Pulmonary Disease (COPD). Give reasons for its cause and the possible medical treatment options. (06 Marks)
- b. With neat architecture diagram, explain the mechanism of filtration of blood in kidneys and the formation of urine. (08 Marks)
- c. Discuss any three bioengineering solutions for muscular dystrophy and osteoporosis. (06 Marks)

Module-4

- 7 a. Describe the working principle of ultrasonography. List any four uses of ultrasonography. (08 Marks)
 b. Discuss any four technological applications of bionic leaf. (04 Marks)
 c. Compare and discuss the bio mimicking facts about birds fly with that of aircraft technology. (08 Marks)

OR

- 8 a. Explain the lotus leaf effect and discuss any two applications of super hydrophobic and self cleaning surfaces. (08 Marks)
 b. Discuss any five applications of Velcro technology. (05 Marks)
 c. Discuss the basic requirements for human blood substitutes. Discuss any two advantages and haemoglobin based oxygen carries and perfluorocarbons as human blood substitutes. (07 Marks)

Module-5

- 9 a. Describe the working of any one bioprinting technique using suitable diagram. Make a list of bioprinting materials. (07 Marks)
 b. Discuss the concepts and technology behind the working of electrical tongue in food science. (06 Marks)
 c. Explain the process of removing polluting heavy metals using bioremediation or biomining via microbial surface adsorption. Give examples of the microbes used for removing any two polluting heavy metals. (07 Marks)

OR

- 10 a. Discuss the importance of 3D printing in food industry. Give examples of 3D printed foods. (06 Marks)
 b. Explain the term DNA origami and its technological importance. (06 Marks)
 c. Discuss any four applications and limitations of artificial intelligence for disease diagnosis. (08 Marks)

* * * * *

--	--	--	--	--	--	--	--	--	--

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 Research Methodology and Intellectual Property Rights

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Give various definitions of research explaining its meaning and scope. Explain the objective and motivation in Engineering research. (08 Marks)
- b. Describe the steps involved in research process with neat diagram. (06 Marks)
- c. What is ethics in Engineering research? Why it is important. (06 Marks)

OR

- 2 a. What is research problem? Define the main issues which should receive the attention of the research in formulating the research problem. (08 Marks)
- b. Discuss in detail various types of research. (06 Marks)
- c. Describe different types of research misconduct. (06 Marks)

Module-2

- 3 a. Discuss the importance of critical literature review and its uses in planning innovation research. (06 Marks)
- b. Explain the concept of knowledge flow through citation. How collaborations certainly impact citation counts? Explain. (08 Marks)
- c. Write short notes on : (06 Marks)
 - i) Google and Google scholar
 - ii) Acknowledgment and Attributions

OR

- 4 a. Analyze the following terms which do not fulfill the actual goal of citations and acknowledgements. i) Spurious citations ii) Biased citations iii) Self citations iv) Coercive citations. (08 Marks)
- b. What are the things author should acknowledge? (06 Marks)
- c. Elaborate on the following : (06 Marks)
 - i) Technical reading
 - ii) Critical and creative reading.

Module-3

- 5 a. What are Intellectual Property Rights? Explain the necessity of it. (06 Marks)
- b. Differentiate between invention and Innovation. What is a Patent? What are the criteria of patentability? (08 Marks)
- c. Enumerate the procedure for application preparation filing and grant of patents. (06 Marks)

OR

- 6 a. List and explain in detail about various types of Intellectual property rights. (08 Marks)
- b. Explain in detail about the infringement of patents. (06 Marks)
- c. What types of invention are not patentable in India? (06 Marks)

Module-4

- 7 a. What is Copyright? Explain classes, criteria and ownership of copyright. (08 Marks)
 b. Discuss about the copyright ownership issues. (06 Marks)
 c. Describe the process involved in the registration of a trademark. (06 Marks)

OR

- 8 a. Enumerate the procedure for registration of copyright. (08 Marks)
 b. Explain about the Trademark and rights from trademarks registration. (06 Marks)
 c. Explain about types of Trademarks registered in India. (06 Marks)

Module-5

- 9 a. How can industrial designs be protected? (06 Marks)
 b. What is a geographical indication? Explain the following with respect to GI.
 i) Ownership and right granted to the GI holders
 ii) Registered GI in India (08 Marks)
 c. Explain the following :
 i) Famous Industrial Designs
 ii) Generic GI and Homonymous GI (06 Marks)

OR

- 10 a. Explain the classification of Industrial Designs. (06 Marks)
 b. Explain the procedure for GI registration. (08 Marks)
 c. Explain about the enforcement of IPR in India. (06 Marks)

* * * * *

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : A

Fourth Semester B.Arch./B.Plan. Degree Examination, Dec.2024/Jan.2025

Universal Human Values and Professional Ethics

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
1. What are the basic desires of every human being for which they are working?
 - a) Physical facility
 - b) Realization and understanding
 - c) Happiness and Prosperity
 - d) Continuous happiness and prosperity
 2. To maintain harmony we have to work at four levels and living. Identify the second level of living.
 - a) Self
 - b) Family
 - c) Nature
 - d) Society
 3. What are the outcomes of realization and understanding?
 - a) Work
 - b) Values
 - c) Happiness
 - d) Health
 4. We become _____ by exploring our svatva and living accordingly,
 - a) Svatantra
 - b) Paratantra
 - c) Happy
 - d) Wealthy
 5. Contents of self exploration are,
 - a) Desire and needs
 - b) Program and Needs
 - c) Program and practical
 - d) Desire and program
 6. What is our participation at different levels in the larger order?
 - a) Work
 - b) Behaviour
 - c) Value
 - d) Realization
 7. What is the main component of UHV to understand and live in harmony at all levels of living?
 - a) Relationship
 - b) Right Understanding
 - c) Self exploration
 - d) Physical facilities
 8. What is the first level of living?
 - a) Nature
 - b) Family
 - c) Society
 - d) Individual

9. Health, Wealth and Wisdom means,
 - a) Conciousness
 - b) Happiness
 - c) Prosperity
 - d) Intelligence
10. What is the Emotional state of being happy?
 - a) Joy
 - b) Happiness
 - c) Pleasure
 - d) All of these
11. Each human being is a co-existence of,
 - a) Spirit and Sanyam
 - b) Health and prosperity
 - c) Self and Body
 - d) Mind and Soul
12. Which of the following does not assume the things?
 - a) Body
 - b) Mind
 - c) Soul
 - d) Spirit
13. The Feeling of responsibility for nurturing, protecting and correct utilization of body is _____.
 - a) Svasta
 - b) Swasthya
 - c) Sanyam
 - d) Conciousness
14. In which way body system works?
 - a) Self organized
 - b) Unorganized
 - c) Self centered
 - d) Poorly organized
15. What is nature of self?
 - a) Physio-chemical
 - b) Bio-chemical
 - c) Semi-consciousness
 - d) Consciousness
16. The basic capacity of Self is known as _____.
 - a) awareness
 - b) work
 - c) power
 - d) thoughts
17. Right feeling and Right thought deals with,
 - a) Self
 - b) Body
 - c) Self and body both
 - d) Physical facility
18. Program and desire are the contents of _____.
 - a) Happiness
 - b) Self evolution
 - c) Self exploration
 - d) Self investigation
19. The system of the body works in a _____ way.
 - a) Understanding
 - b) Self organized
 - c) Right Evaluation
 - d) Self investigated
20. The _____ is an _____ of _____.
 - a) Behaviour, work, Body.
 - b) Value, Understanding, Power
 - c) Body, Instrument, I (self)
 - d) Right Evaluation, Understanding, Power
21. The satisfaction of self is ensured by dimension of _____.
 - a) Justice
 - b) Health
 - c) Education
 - d) Service
22. What we obtain as outcome of labour on rest of nature is known as _____?
 - a) Production
 - b) Service
 - c) Preservation
 - d) Right Utilization
23. The competence gained from _____ enables us to live in harmony.
 - a) Evaluation
 - b) Implementation
 - c) Understanding
 - d) Learning

42. Natural acceptance does not change with _____.
 a) Time b) Age c) Values d) Time / age
43. Aspirations are the _____ that a person often dreams to possess or achieve.
 a) Only dreams b) desires c) goals d) Goals, ambitions or desires
44. The basic aspirations of all human beings are centered around _____.
 a) Health b) Family
 c) Personal development d) All of these
45. The definitiveness of human conduct in terms of values policies and character is,
 a) Morality b) Ethics c) Behaviour d) Understanding
46. Professional Ethics is the implication of _____ in profession.
 a) Right thinking b) Right behaviour
 c) Right decision d) Right understanding
47. Holistic production systems are _____.
 a) Eco-friendly b) People friendly c) Both (a) and (b) d) None of these
48. Does right understanding provides the basis for ethical human conduct?
 a) Yes b) No c) Can't say d) Statement is wrong
49. The right understanding gained through self exploration also enables use to identify the definitiveness of human conduct. What is this called?
 a) Value b) Ethical human conduct
 c) Policy d) Utility value.
50. The purpose of value education is to _____.
 a) Foster universal core values b) Make the syllabus easy
 c) Both (a) and (d) d) Develop values in individuals

* * * * *

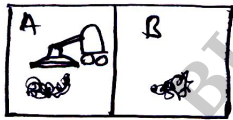
--	--	--	--	--	--	--	--	--	--

Fourth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 Artificial Intelligence

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Explain the significance of the Turing Test in AI. What abilities does a computer need to pass the turing test? Discuss why AI researchers have not focused extensively on passing the Turing test.	10	L2	CO1
	b.	Write the percept sequence for vacuum cleaner agent and tabulate the workflow of the same with respect to the scenario with location of square A and B as given in Fig.Q1(b).  Fig.Q1(b)	10	L3	CO1
OR					
Q.2	a.	Compare simple reflex agents and model-based reflex agents, focusing on their perception processing, decision-making methods and explain how model-based agents address the limitations of simple reflex agents with their schematic diagrams.	10	L3	CO1
	b.	Analyze and discuss PEAS descriptor for the following applications in detail: i) Medical diagnosis s/m ii) Taxi driver iii) Interactive English tutor iv) Part picking robot v) Refinery controller.	10	L3	CO1
Module – 2					
Q.3	a.	Define Toy problems and Real-world problems in the context of problem-solving approaches with an example for each type in detail.	10	L2	CO2
	b.	Compare and contrast the vacuum world problem and the 8-tile puzzle problems discussing their state representations, initial states, actions and goal tests.	10	L3	CO2
OR					
Q.4	a.	Explain the components and architecture of a problem solving agent.	10	L2	CO2
	b.	Compare and contrast depth-first search with breadth-first search with examples.	10	L3	CO2
Module – 3					
Q.5	a.	Outline a generic knowledge-based agent's program and discuss the difference between declarative and procedural approaches in the context of building knowledge-based agents.	10	L3	CO3

	b.	Apply A* search algorithm to find the solution path from the start node (S) to the goal node (G). The heuristic values (h) are provided with the nodes, and the travel costs (C) are provided with the edges as shown in Fig.Q5(b).	10	L3	CO3
--	-----------	---	-----------	-----------	------------

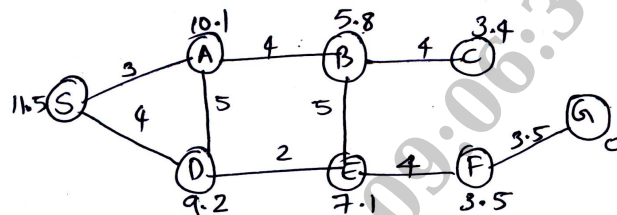


Fig.Q5(b)

OR

Q.6	a.	Describe the Wumpus world environment and the PEAS specification for the knowledge based agent. Explain how does the agent navigate and make decisions based on percepts in this environment.	10	L2	CO3
	b.	Solve the following eight-tile puzzle using heuristic function approach and the tree diagram considering the initial and final states as specified.	10	L2	CO3

1	2	3
	4	5
7	8	6
Initial State		

1	2	3
4	5	6
7	8	
Final State		

Module – 4

Q.7	a.	Define universal and existential instantiations with examples. Prove the following using Backward and forward chaining : “As per the law, it is a crime for an American to sell weapons to hostile nations. Country E, an enemy of America, has some missiles and all the missiles were sold to it by Solan, who is an American citizen”. Prove that “Solan is a criminal”.	10	L2	CO4
	b.	Explain the following with respect to first-order logic: (i) Assertions and queries (ii) Numbers, sets and lists (iii) The wumpus world.	10	L2	CO4

OR

Q.8	a.	Apply predicate logic to translate and formalize the following statements: (first order logic) (i) Marcus was a man. (ii) Marcus was a Pompeian. (iii) All Pompeian were Romans. (iv) Caesar was a ruler. (v) All Romans were either loyal to Caesar or hated him. (vi) Everyone is loyal to someone. (vii) People only try to assassinate rulers they are not loyal to. (viii) Marcus tried to assassinate Caesar (ix) All men are people. (x) Some people are loyal to Marcus. In each case, provide the appropriate predicates, quantifiers, variables and logical connectives to represent the statements accurately in predicate logic notations.	10	L3	CO4
	b.	Explain backward chaining algorithm with an example.	10	L2	CO4

Module – 5																									
Q.9	a.	In a city, 30% of the population owns a dog, while 70% owns a cat. Among dog owners, 80% take their dogs for daily walks and among cat owners, only 50% do so. If a person is observed walking their pet daily, calculate probability that this person owns a dog. State the Baye’s theorem.	10	L3	CO5																				
	b.	Explain Expert Systems, detailing the characteristics, capabilities, incapacabilities, components and provide two examples.	10	L2	CO5																				
OR																									
Q.10	a.	Explain uncertain knowledge in the context of artificial intelligence. Discuss the challenges an agent focus when acting under uncertainty with the example of diagnosing a dental patient’s toothache.	10	L2	CO5																				
	b.	Explain the concept of inference using full joint probability in the context of agents acting under uncertainty with an example of the following variables: Weather = {sunny, rain, cloudy, snow}, Cavity = {cavity, $\neg$cavity}. Also calculate the following : $P(\text{cavity} \vee \text{toothache})$, $P(\text{cavity} \mid \text{toothache})$, $P(\neg \text{cavity} \mid \text{toothache})$, Given the following full joint distribution for the Toothache, Cavity, Catch world. <table><tr><td></td><td colspan="2">Toothache</td><td colspan="2">$\neg$Toothache</td></tr><tr><td></td><td>Catch</td><td>$\neg$Catch</td><td>Catch</td><td>$\neg$Catch</td></tr><tr><td>Cavity</td><td>0.108</td><td>0.012</td><td>0.072</td><td>0.008</td></tr><tr><td>$\neg$Cavity</td><td>0.016</td><td>0.064</td><td>0.144</td><td>0.576</td></tr></table>		Toothache		$\neg$ Toothache			Catch	$\neg$ Catch	Catch	$\neg$ Catch	Cavity	0.108	0.012	0.072	0.008	$\neg$ Cavity	0.016	0.064	0.144	0.576	10	L3	CO5
	Toothache		$\neg$ Toothache																						
	Catch	$\neg$ Catch	Catch	$\neg$ Catch																					
Cavity	0.108	0.012	0.072	0.008																					
$\neg$ Cavity	0.016	0.064	0.144	0.576																					

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

BBOK407

Fourth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025

Biology for Engineers

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.

2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1			M	L	C
Q.1	a.	Define cell. Explain the structure and function of plant cell with neat diagram.	08	L2	CO1
	b.	Define Stem Cell. Discuss the types and application of stem cells.	06	L2	CO1
	c.	Describe the properties and functions of hormones.	06	L2	CO1
OR					
Q.2	a.	Discuss the properties and functions of nucleic acids in cellular processes.	07	L2	CO1
	b.	Discuss the properties and functions of enzymes.	07	L2	CO1
	c.	Discuss the properties of vitamins and its supplies.	06	L2	CO1
Module – 2					
Q.3	a.	Apply the knowledge of nucleic acid in DNA finger printing in forensic applications.	08	L3	CO1
	b.	Discuss whey protein and plant based protein as protein based food.	06	L2	CO1
	c.	Write a note on PLA as bioplastic.	06	L1	CO1
OR					
Q.4	a.	Apply your knowledge of lipids and outline the process of obtaining biodiesel from lipids.	07	L3	CO1
	b.	Define vaccine. Discuss the mechanism of RNA vaccine for COVID-19.	07	L2	CO1
	c.	Write a note on enzyme based biosensors.	06	L1	CO1
Module – 3					
Q.5	a.	Compare human brain with computer's CPU.	07	L3	CO2
	b.	Explain lungs as a purification system.	07	L2	CO2
	c.	Write a note on dialysis systems of kidney.	06	L1	CO2
OR					
1 of 2					

Q.6	a.	Illustrate the engineering solutions available for Parkinson's disease.	07	L3	CO2
	b.	Explain heart as a pumping system.	07	L2	CO2
	c.	Write a note on optical correction and materials used for lens.	06	L1	CO2
Module – 4					
Q.7	a.	Illustrate the HBOCs and PFCs as human substituents.	07	L3	CO3
	b.	Explain how the structure of shark skin reduces drag and how these properties have been applied to improve swim suit.	07	L2	CO3
	c.	Explain the term GPS and aircrafts technology as bio inspired by bird fly.	06	L2	CO3
OR					
Q.8	a.	Compare the uses of ultrasonography and sonars.	07	L3	CO3
	b.	Discuss the king fisher beak shaped bullet train to the reduction of noise and improve the stability.	06	L2	CO3
	c.	Explain the term superhydrophobic and self-cleaning in lotus leaf effect.	07	L2	CO3
Module – 5					
Q.9	a.	Explain bioimaging and artificial intelligence technique in disease diagnosis.	08	L2	CO4
	b.	Explain the working principles of electrical tongue and electrical nose in food industry.	06	L2	CO4
	c.	Write a note on bioengineering of Muscular dystrophy and osteoporosis.	06	L1	CO4
OR					
Q.10	a.	Explain the process of biomining via microbial surface adsorption.	07	L2	CO4
	b.	Describe the concept of DNA origami and its role in bio-computing.	06	L2	CO4
	c.	Write a note on self healing bio-concrete and bio-mineralization processes.	07	L1	CO4

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : A

Fifth Semester B.E./B.Tech Degree Examination, Dec.2024/Jan.2025
Environmental Studies

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
1. Which of the following is a Producer?
 a) Animals b) Human beings c) Plants d) Fish
 2. An ecosystem consists of
 a) Biotic species b) Biotic species and physical factors
 c) Only insects d) Only materials
 3. The term Ecology was coined by
 a) E.P. Odium b) A. G. Tansley c) Albert Einstein d) A.G. Haeckel
 4. Which year did the concept of sustainability first appear?
 a) 1992 b) 1978 c) 1980 d) 1987
 5. According to United Nations, the following are the significant issues of social progress.
 a) Instruction b) Public Health c) Living standards d) All of these
 6. The number of SDGS are
 a) 10 b) 15 c) 17 d) 16
 7. Which one of the following is not comes under SDG's?
 a) Zero Hunger b) Political activity c) Education d) Gender quality
 8. Which of the following has the largest population in food chain?
 a) Producers b) 1st degree consumers
 c) 2nd degree consumers d) Decomposers
 9. U.N era of scheduling for sustainable growth is from
 a) 2002 - 11 b) 2003 - 12 c) 2004 - 13 d) 2005 - 14

10. Which of the following is an example of Artificial Ecosystem?
a) Forest b) River c) Aquarium d) Lake
11. Solar Energy is an example of
a) Renewable b) Continuous c) Non - renewable d) None of these
12. Hydrogen energy can be tapped through
a) Heat pumps b) Fuel cells c) Petroleum d) Gassifiers
13. OTEC is an energy technology that converts
a) Energy in large tides of ocean to generate electricity
b) Energy in ocean waves to generate electricity
c) Energy in ocean due to thermal gradient to generate electricity
d) Energy in the fast moving ocean currents to generate electricity.
14. Which of the following source of energy is less eco – friendly?
a) Biogas b) Wind c) Solar d) Nuclear
15. O₃ Represents
a) Oxygen b) Planets c) Ozone d) Green house gases
16. Which of the following is an example of Water Borne Diseases
a) Hepatitis - A b) Hepatitis - B c) Hepatitis - C d) Hepatitis - H
17. Identify the renewable sourced of energy from the following :
a) Coal b) Wind power c) Uranium d) Oil
18. Which of the following is biotic?
a) Forest b) Iron c) Water d) None
19. World Environment Day celebrated on
a) 6th June b) 5th July c) 5th June d) 5th Jan
20. Which of the following is conventional source of Energy?
a) Wind Energy b) Solar Energy c) Bio gas d) None of these
21. Temporary hardness of water is due to
a) Chloride hardness b) Manganese hardness
c) Calcium hardness d) Carbonate hardness
22. The green house gas is
a) N₂O b) CH₄ c) CO₂ d) All of these
23. Which is not a natural source of pollution?
a) Volcanoes b) Forest - Fire c) Coal - fire d) Dust storms
24. Air pollution from automobiles can be controlled by providing
a) Wet collector b) Scrubbers c) Catalytic converter d) All of these
25. Normal sound level of quiet speech is
a) 120 dB b) 90 dB c) 140 dB d) 50 dB

26. What is the permissible range of p^H for drinking water as per the Indian standard?
 a) 6 to 9 b) 6.5 to 7.5 c) 6 to 8.5 d) 6.5 to 8.5
27. Which of the following is a major cause of soil pollution?
 a) Accidents involving the vehicles that are transporting waste material.
 b) Pesticides and chemical fertilizers from agricultural lands
 c) Improper solid waste disposal d) All of these
28. What does E – Waste stand for?
 a) Environment Waste b) Electronic Waste
 c) Equipment Waste d) All of these
29. What is municipal solid waste disposal?
 a) The placement on the land b) The lack of waste
 c) In sanitary land fill site d) All of these
30. What is major cause of air pollution?
 a) Fossil fuel burning b) Industry emission
 c) Wild fire d) All of these
31. Average long – term weather of an area is called
 a) Weather conditions b) Seasonal variations
 c) Average weather d) Climate
32. Climate and global air circulations are mainly affected by the properties of
 a) Water and Air b) Temperature c) Precipitation d) None of these
33. The p^H of acid rain is
 a) less than 5.2 b) 5.2 – 6.2 c) 6.2 – 7.2 d) Above 7.2
34. Acid rain has been increasing day by day due to
 a) Urbanisation b) Industrialisation
 c) Increase in vehicle population d) None of these
35. Which is responsible for Ozone depletion?
 a) Methyl bromide b) CFC's
 c) Hydro chlorofluorocarbons d) All of these
36. The International protocol to protect the Ozone layer's
 a) Kytoto protocol b) Basal protocol c) Montreal protocol d) Viema protocol
37. The Ozone layer is locate upto _____ km above the earth surface.
 a) 1000 b) 50 c) 80 d) 100
38. Acid rain effects on
 a) Materials b) Plants c) Soil d) All of these
39. High – Concentration of fluoride content in drinking water causes.
 a) Dental flurosis b) Bone brittling c) Dental caries d) Plague
40. Desired concentration of fluoride content in drinking water in mg/ℓ is
 a) 0.7 – 1.2 b) 0.5 – 2 c) 2 – 5 d) 1 – 1.75

41. The First United National conference as Human Environment was held at Stickholm in
a) December 1972 b) June 1972 c) June 1974 d) June 1992
42. To achieve the goal of clean environment, important strategies required are
a) Effective laws b) Active participation of the publics
c) Active participation of NGO's d) Both (a) and (b)
43. There are provisions for protection for our environment under
a) Indian Penal Code b) Police Act c) Municipal Act d) All of these
44. The Government of India enacted the Water Act in the year.
a) 1970 b) 1974 c) 1975 d) 1980
45. The Environmental Act of India was enacted in the year.
a) 1986 b) 1992 c) 1984 d) 1974
46. The Environmental Act, 1986 deals with
a) Air b) Water c) Land d) All of these
47. Karnataka State "Pollution Control Board" was established in the year.
a) 1974 b) 1982 c) 1986 d) 1976
48. Which of the following is not a waste treatment method for biomedical waste?
a) Incineration b) Chemical disinfecting
c) Auto claving d) Sieving
49. The Organic material of the solid waste will decompose.
a) By the flow of water b) By the soil particles
c) By the action of micro organisms d) B Oxidation
50. Which of the following element make e – waste hazardous in nature?
a) Lead b) Glass c) Plastic d) Iron

* * * * *

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : B

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Environmental Studies

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
1. The First United National conference as Human Environment was held at Stockholm in
a) December 1972 b) June 1972 c) June 1974 d) June 1992
 2. To achieve the goal of clean environment, important strategies required are
a) Effective laws b) Active participation of the publics
c) Active participation of NGO's d) Both (a) and (b)
 3. There are provisions for protection for our environment under
a) Indian Penal Code b) Police Act c) Municipal Act d) All of these
 4. The Government of India enacted the Water Act in the year.
a) 1970 b) 1974 c) 1975 d) 1980
 5. The Environmental Act of India was enacted in the year.
a) 1986 b) 1992 c) 1984 d) 1974
 6. The Environmental Act, 1986 deals with
a) Air b) Water c) Land d) All of these
 7. Karnataka State "Pollution Control Board" was established in the year.
a) 1974 b) 1982 c) 1986 d) 1976
 8. Which of the following is not a waste treatment method for biomedical waste?
a) Incineration b) Chemical disinfecting
c) Auto claving d) Sieving
 9. The Organic material of the solid waste will decompose.
a) By the flow of water b) By the soil particles
c) By the action of micro organisms d) B Oxidation

Ver – B – 1 of 4

10. Which of the following element make e – waste hazardous in nature?
a) Lead b) Glass c) Plastic d) Iron
11. Average long – term weather of an area is called
a) Weather conditions b) Seasonal variations
c) Average weather d) Climate
12. Climate and global air circulations are mainly affected by the properties of
a) Water and Air b) Temperature c) Precipitation d) None of these
13. The p^H of acid rain is
a) less than 5.2 b) 5.2 – 6.2 c) 6.2 – 7.2 d) Above 7.2
14. Acid rain has been increasing day by day due to
a) Urbanisation b) Industrialisation
c) Increase in vehicle population d) None of these
15. Which is responsible for Ozone depletion?
a) Methyl bromide b) CFC's
c) Hydro chlorofluorocarbons d) All of these
16. The International protocol to protect the Ozone layer's
a) Kytoto protocol b) Basal protocol c) Montreal protocol d) Viema protocol
17. The Ozone layer is locate upto _____ km above the earth surface.
a) 1000 b) 50 c) 80 d) 100
18. Acid rain effects on
a) Materials b) Plants c) Soil d) All of these
19. High – Concentration of fluoride content in drinking water causes.
a) Dental flurosis b) Bone brittling c) Dental caries d) Plague
20. Desired concentration of fluoride content in drinking water in mg/ℓ is
a) 0.7 – 1.2 b) 0.5 – 2 c) 2 – 5 d) 1 – 1.75
21. Solar Energy is an example of
a) Renewable b) Continuous c) Non - renewable d) None of these
22. Hydrogen energy can be tapped through
a) Heat pumps b) Fuel cells c) Petroleum d) Gassifiers
23. OTEC is an energy technology that converts
a) Energy in large tides of ocean to generate electricity
b) Energy in ocean waves to generate electricity
c) Energy in ocean due to thermal gradient to generate electricity
d) Energy in the fast moving ocean currents to generate electricity.
24. Which of the following source of energy is less eco – friendly?
a) Biogas b) Wind c) Solar d) Nuclear

25. O₃ Represents
a) Oxygen b) Planets c) Ozone d) Green house gases
26. Which of the following is an example of Water Borne Diseases
a) Hepatitis - A b) Hepatitis - B c) Hepatitis - C d) Hepatitis - H
27. Identify the renewable sourced of energy from the following :
a) Coal b) Wind power c) Uranium d) Oil
28. Which of the following is biotic?
a) Forest b) Iron c) Water d) None
29. World Environment Day celebrated on
a) 6th June b) 5th July c) 5th June d) 5th Jan
30. Which of the following is conventional source of Energy?
a) Wind Energy b) Solar Energy c) Bio gas d) None of these
31. Which of the following is a Producer?
a) Animals b) Human beings c) Plants d) Fish
32. An ecosystem consists of
a) Biotic species b) Biotic species and physical factors
c) Only insects d) Only materials
33. The term Ecology was coined by
a) E.P. Odiyum b) A. G. Tansley c) Albert Einstein d) A.G. Haeckal
34. Which year did the concept of sustainability first appear?
a) 1992 b) 1978 c) 1980 d) 1987
35. According to United Nations, the following are the significant issues of social progress.
a) Instruction b) Public Health c) Living standards d) All of these
36. The number of SDGS are
a) 10 b) 15 c) 17 d) 16
37. Which one of the following is not comes under SDG's?
a) Zero Hunger b) Political activity c) Education d) Gender quality
38. Which of the following has the largest population in food chain?
a) Producers b) 1st degree consumers
c) 2nd degree consumers d) Decomposers
39. U.N era of scheduling for sustainable growth is from
a) 2002 - 11 b) 2003 - 12 c) 2004 - 13 d) 2005 - 14
40. Which of the following is an example of Artificial Ecosystem?
a) Forest b) River c) Aquarium d) Lake

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : C

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Environmental Studies

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
1. Temporary hardness of water is due to
 - a) Chloride hardness
 - b) Manganese hardness
 - c) Calcium hardness
 - d) Carbonate hardness
 2. The green house gas is
 - a) N_2O
 - b) CH_4
 - c) CO_2
 - d) All of these
 3. Which is not a natural source of pollution?
 - a) Volcanoes
 - b) Forest - Fire
 - c) Coal - fire
 - d) Dust storms
 4. Air pollution from automobiles can be controlled by providing
 - a) Wet collector
 - b) Scrubbers
 - c) Catalytic converter
 - d) All of these
 5. Normal sound level of quiet speech is
 - a) 120 dB
 - b) 90 dB
 - c) 140 dB
 - d) 50 dB
 6. What is the permissible range of p^H for drinking water as per the Indian standard?
 - a) 6 to 9
 - b) 6.5 to 7.5
 - c) 6 to 8.5
 - d) 6.5 to 8.5
 7. Which of the following is a major cause of soil pollution?
 - a) Accidents involving the vehicles that are transporting waste material.
 - b) Pesticides and chemical fertilizers from agricultural lands
 - c) Improper solid waste disposal
 - d) All of these
 8. What does E – Waste stand for?
 - a) Environment Waste
 - b) Electronic Waste
 - c) Equipment Waste
 - d) All of these

9. What is municipal solid waste disposal?
 - a) The placement on the load
 - b) The lack of waste
 - c) In sanitary land fill site
 - d) All of these
10. What is major cause of air pollution?
 - a) Fossil fuel burning
 - b) Industry emission
 - c) Wild fire
 - d) All of these
11. The First United National conference as Human Environment was held at Stockholm in
 - a) December 1972
 - b) June 1972
 - c) June 1974
 - d) June 1992
12. To achieve the goal of clean environment, important strategies required are
 - a) Effective laws
 - b) Active participation of the publics
 - c) Active participation of NGO's
 - d) Both (a) and (b)
13. There are provisions for protection for our environment under
 - a) Indian Penal Code
 - b) Police Act
 - c) Municipal Act
 - d) All of these
14. The Government of India enacted the Water Act in the year.
 - a) 1970
 - b) 1974
 - c) 1975
 - d) 1980
15. The Environmental Act of India was enacted in the year.
 - a) 1986
 - b) 1992
 - c) 1984
 - d) 1974
16. The Environmental Act, 1986 deals with
 - a) Air
 - b) Water
 - c) Land
 - d) All of these
17. Karnataka State "Pollution Control Board" was established in the year.
 - a) 1974
 - b) 1982
 - c) 1986
 - d) 1976
18. Which of the following is not a waste treatment method for biomedical waste?
 - a) Incineration
 - b) Chemical disinfecting
 - c) Auto claving
 - d) Sieving
19. The Organic material of the solid waste will decompose.
 - a) By the flow of water
 - b) By the soil particles
 - c) By the action of micro organisms
 - d) B Oxidation
20. Which of the following element make e – waste hazardous in nature?
 - a) Lead
 - b) Glass
 - c) Plastic
 - d) Iron
21. Average long – term weather of an area is called
 - a) Weather conditions
 - b) Seasonal variations
 - c) Average weather
 - d) Climate
22. Climate and global air circulations are mainly affected by the properties of
 - a) Water and Air
 - b) Temperature
 - c) Precipitation
 - d) None of these
23. The p^H of acid rain is
 - a) less than 5.2
 - b) 5.2 – 6.2
 - c) 6.2 – 7.2
 - d) Above 7.2

40. Which of the following is conventional source of Energy?
a) Wind Energy b) Solar Energy c) Bio gas d) None of these
41. Which of the following is a Producer?
a) Animals b) Human beings c) Plants d) Fish
42. An ecosystem consists of
a) Biotic species b) Biotic species and physical factors
c) Only insects d) Only materials
43. The term Ecology was coined by
a) E.P. Odiyum b) A. G. Tansley c) Albert Einstein d) A.G. Haeckal
44. Which year did the concept of sustainability first appear?
a) 1992 b) 1978 c) 1980 d) 1987
45. According to United Nations, the following are the significant issues of social progress.
a) Instruction b) Public Health c) Living standards d) All of these
46. The number of SDGS are
a) 10 b) 15 c) 17 d) 16
47. Which one of the following is not comes under SDG's?
a) Zero Hunger b) Political activity c) Education d) Gender quality
48. Which of the following has the largest population in food chain?
a) Producers b) 1st degree consumers
c) 2nd degree consumers d) Decomposers
49. U.N era of scheduling for sustainable growth is from
a) 2002 - 11 b) 2003 - 12 c) 2004 - 13 d) 2005 - 14
50. Which of the following is an example of Artificial Ecosystem?
a) Forest b) River c) Aquarium d) Lake

* * * * *

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : D

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Environmental Studies

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
1. Average long – term weather of an area is called
 - a) Weather conditions
 - b) Seasonal variations
 - c) Average weather
 - d) Climate
 2. Climate and global air circulations are mainly affected by the properties of
 - a) Water and Air
 - b) Temperature
 - c) Precipitation
 - d) None of these
 3. The p^H of acid rain is
 - a) less than 5.2
 - b) 5.2 – 6.2
 - c) 6.2 – 7.2
 - d) Above 7.2
 4. Acid rain has been increasing day by day due to
 - a) Urbanisation
 - b) Industrialisation
 - c) Increase in vehicle population
 - d) None of these
 5. Which is responsible for Ozone depletion?
 - a) Methyl bromide
 - b) CFC's
 - c) Hydro chlorofluorocarbons
 - d) All of these
 6. The International protocol to protect the Ozone layer's
 - a) Kytoto protocol
 - b) Basal protocol
 - c) Montreal protocol
 - d) Viema protocol
 7. The Ozone layer is locate upto _____ km above the earth surface.
 - a) 1000
 - b) 50
 - c) 80
 - d) 100
 8. Acid rain effects on
 - a) Materials
 - b) Plants
 - c) Soil
 - d) All of these
 9. High – Concentration of fluoride content in drinking water causes.
 - a) Dental flurosis
 - b) Bone brittling
 - c) Dental caries
 - d) Plague

Ver – D – 1 of 4

10. Desired concentration of fluoride content in drinking water in mg/l is
a) 0.7 – 1.2 b) 0.5 – 2 c) 2 – 5 d) 1 – 1.75
11. Which of the following is a Producer?
a) Animals b) Human beings c) Plants d) Fish
12. An ecosystem consists of
a) Biotic species b) Biotic species and physical factors
c) Only insects d) Only materials
13. The term Ecology was coined by
a) E.P. Odium b) A. G. Tansley c) Albert Einstein d) A.G. Haeckel
14. Which year did the concept of sustainability first appear?
a) 1992 b) 1978 c) 1980 d) 1987
15. According to United Nations, the following are the significant issues of social progress.
a) Instruction b) Public Health c) Living standards d) All of these
16. The number of SDGS are
a) 10 b) 15 c) 17 d) 16
17. Which one of the following is not comes under SDG's?
a) Zero Hunger b) Political activity c) Education d) Gender quality
18. Which of the following has the largest population in food chain?
a) Producers b) 1st degree consumers
c) 2nd degree consumers d) Decomposers
19. U.N era of scheduling for sustainable growth is from
a) 2002 - 11 b) 2003 - 12 c) 2004 - 13 d) 2005 - 14
20. Which of the following is an example of Artificial Ecosystem?
a) Forest b) River c) Aquarium d) Lake
21. The First United National conference as Human Environment was held at Stockholm in
a) December 1972 b) June 1972 c) June 1974 d) June 1992
22. To achieve the goal of clean environment, important strategies required are
a) Effective laws b) Active participation of the publics
c) Active participation of NGO's d) Both (a) and (b)
23. There are provisions for protection for our environment under
a) Indian Penal Code b) Police Act c) Municipal Act d) All of these
24. The Government of India enacted the Water Act in the year.
a) 1970 b) 1974 c) 1975 d) 1980
25. The Environmental Act of India was enacted in the year.
a) 1986 b) 1992 c) 1984 d) 1974
26. The Environmental Act, 1986 deals with
a) Air b) Water c) Land d) All of these

27. Karnataka State "Pollution Control Board" was established in the year.
a) 1974 b) 1982 c) 1986 d) 1976
28. Which of the following is not a waste treatment method for biomedical waste?
a) Incineration b) Chemical disinfecting
c) Auto claving d) Sieving
29. The Organic material of the solid waste will decompose.
a) By the flow of water b) By the soil particles
c) By the action of micro organisms d) B Oxidation
30. Which of the following element make e – waste hazardous in nature?
a) Lead b) Glass c) Plastic d) Iron
31. Temporary hardness of water is due to
a) Chloride hardness b) Manganese hardness
c) Calcium hardness d) Carbonate hardness
32. The green house gas is
a) N_2O b) CH_4 c) CO_2 d) All of these
33. Which is not a natural source of pollution?
a) Volcanoes b) Forest - Fire c) Coal - fire d) Dust storms
34. Air pollution from automobiles can be controlled by providing
a) Wet collector b) Scrubbers c) Catalytic converter d) All of these
35. Normal sound level of quiet speech is
a) 120 dB b) 90 dB c) 140 dB d) 50 dB
36. What is the permissible range of p^H for drinking water as per the Indian standard?
a) 6 to 9 b) 6.5 to 7.5 c) 6 to 8.5 d) 6.5 to 8.5
37. Which of the following is a major cause of soil pollution?
a) Accidents involving the vehicles that are transporting waste material.
b) Pesticides and chemical fertilizers from agricultural lands
c) Improper solid waste disposal d) All of these
38. What does E – Waste stand for?
a) Environment Waste b) Electronic Waste
c) Equipment Waste d) All of these
39. What is municipal solid waste disposal?
a) The placement on the land b) The lack of waste
c) In sanitary land fill site d) All of these
40. What is major cause of air pollution?
a) Fossil fuel burning b) Industry emission
c) Wild fire d) All of these
41. Solar Energy is an example of
a) Renewable b) Continuous c) Non - renewable d) None of these

42. Hydrogen energy can be tapped through
a) Heat pumps b) Fuel cells c) Petroleum d) Gassifiers
43. OTEC is an energy technology that converts
a) Energy in large tides of ocean to generate electricity
b) Energy in ocean waves to generate electricity
c) Energy in ocean due to thermal gradient to generate electricity
d) Energy in the fast moving ocean currents to generate electricity.
44. Which of the following source of energy is less eco – friendly?
a) Biogas b) Wind c) Solar d) Nuclear
45. O₃ Represents
a) Oxygen b) Planets c) Ozone d) Green house gases
46. Which of the following is an example of Water Borne Diseases
a) Hepatitis - A b) Hepatitis - B c) Hepatitis - C d) Hepatitis - H
47. Identify the renewable sourced of energy from the following :
a) Coal b) Wind power c) Uranium d) Oil
48. Which of the following is biotic?
a) Forest b) Iron c) Water d) None
49. World Environment Day celebrated on
a) 6th June b) 5th July c) 5th June d) 5th Jan
50. Which of the following is conventional source of Energy?
a) Wind Energy b) Solar Energy c) Bio gas d) None of these

* * * * *

--	--	--	--	--	--	--	--	--	--

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Research Methodology and IPR

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1			M	L	C
Q.1	a.	Identify the meaning of Research and brief out the objective and motivation in engineering research.	10	L1	CO1
	b.	Explain brief about research cycle and verify with the research flow diagram.	10	L1	CO1
OR					
Q.2	a.	Identify the types of engineering research and briefly explain them.	10	L1	CO1
	b.	Explain about the different types of research misconduct.	10	L1	CO1
Module – 2					
Q.3	a.	Explain about the importance of literature review and technical reading.	10	L2	CO2
	b.	Mention the various benefits of bibliographic databases.	10	L1	CO2
OR					
Q.4	a.	Identify the impact of technical reaction and brief about it.	10	L1	CO2
	b.	Enumerate the impact of title and keywords on citation with example.	10	L2	CO2
Module – 3					
Q.5	a.	Define Intellectual properties and explain about its types.	10	L1	CO3
	b.	Explain about the key aspect of patent law.	10	L2	CO3
OR					
Q.6	a.	Explain about the assessment of novelty.	10	L1	CO3
	b.	Brief about the patent procedure in India.	10	L1	CO4
Module – 4					
Q.7	a.	Mention and brief about the justification for copyright law.	10	L2	CO4
	b.	Explain about the basic concepts of under lying copyright law.	10	L1	CO4
OR					
Q.8	a.	Brief about the various representations of sound recordings.	10	L2	CO5
	b.	Explain about TRIPS agreement in detail.	10	L1	CO5

Module – 5					
Q.9	a.	Explain about the justification of protection designs.	10	L2	CO5
	b.	Brief about the excluded subjected matter in the context of design protection.	10	L1	CO5
OR					
Q.10	a.	What are the rights of the owner of designs? Explain.	10	L1	CO5
	b.	Brief about the Assignment of Design Rights.	10	L1	CO5

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : A

Fourth Semester B.E./B.Tech. Degree Examination, June/July 2024 Universal Human Values Course

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
1. The purpose of value –Education is to
 - a) Foster universal core values
 - b) Make syllabus easy
 - c) Develop values in individual
 - d) Both A and C
 2. Self exploration uses two mechanisms i) Natural Acceptance ii) -----?
 - a) Experiential validation
 - b) Reason
 - c) Logical Thinking
 - d) Theoretical concept
 3. Once we know what is valuable to us, these values becomes the basis, the anchor for ____
 - a) Knowledge
 - b) Actions
 - c) Society
 - d) None of these
 4. To fulfill Human Aspirations, what are necessary
 - a) Both values and skills
 - b) Values
 - c) Skills
 - d) None of these
 5. Which the following are the encompassing principles underlying the successful implementation of value education?
 A) Conviction B) Connection C) Critical thinking D) Commitment
 choose the most appropriate answer from the options given below :
 - a) A, C and D only
 - b) B, C and D only
 - c) A, B and D only
 - d) None of these
 6. Value and skills should go hand in hand
 - a) True
 - b) False
 - c) Cannot tell
 - d) None of these

7. Are the content of self – exploration
 - a) Program
 - b) Desire
 - c) Both a and b
 - d) None
8. Human life is lived at four levels individual, Family, Society and ____
 - a) Nature
 - b) Nurture
 - c) World
 - d) Universe
9. Any course content on value education needs to be
 - a) Universal
 - b) Rational
 - c) Natural
 - d) All of these
10. Value education enables us to
 - a) To understand our needs
 - b) Visualize our goals correctly
 - c) Indicate the direction for their fulfillment
 - d) All of the above
11. Harmony should be maintained in
 - a) Between body and life
 - b) Between self and society
 - c) Between life and environment
 - d) All of these
12. I being the
 - a) does, seer and Enjoyer
 - b) doer
 - c) seer
 - d) enjoyer
13. Which of the following is NOT response of the self?
 - a) Knowing
 - b) Assuming
 - c) Recognizing
 - d) Preconditioning
14. Activities of self (I) are
 - a) Happiness
 - b) Prosperity
 - c) Desire, thought and expectation
 - d) None
15. The requirement of body is right utilization and nurturing
 - a) Desire
 - b) Protection
 - c) Thought
 - d) Expectation
16. The ____ is an instrument of ____
 - a) I, Body
 - b) Body, I
 - c) Both a and b
 - d) None
17. The activity of desire, thought and expecting together is called as
 - a) Body
 - b) Health
 - c) Imagination
 - d) Future
18. Imaging is ____ with time
 - a) Continuous
 - b) Discontinuous
 - c) Random
 - d) Different
19. Where there is harmony among the parts of the body it is known as
 - a) Swasthya
 - b) Sanyam
 - c) Prosperity
 - d) None
20. Knowing means having the
 - a) Assumption
 - b) Right understanding
 - c) Right feeling
 - d) None
21. Harmony should be maintained in
 - a) Between body and life
 - b) Between self and society
 - c) Between life and environment
 - d) All of these

22. The foundational value in relationship is
a) Respect b) Love c) Trust d) Glory
23. Ensuring right understanding and feeling in the others is called
a) Care b) Affection c) Gratitude d) Guidance
24. Harmony in the family is the building block for harmony in the
a) Society b) Individual c) Friend d) Relative
25. The total numbers of feelings in human relationship
a) 5 b) 10 c) 9 d) 8
26. Comprehensive human goal is right understanding prosperity, trust (fearlessness) and
a) Co-existence b) Happiness c) Abhay d) None
27. There is justice in relationship when there is
a) Mutual fulfillment b) Self regulation c) Freedom d) None
28. The extension of family is
a) Self b) Body c) Society d) Nature
29. The feeling of relatedness to all human beings is called
a) Love b) Affection c) Gratitude d) Respect
30. Acceptance of excellence in others is called
a) Reverence b) Glory c) Gratitude d) Guidance
31. All the units of nature can be classified into _____ orders
a) Two b) Three c) Four d) Six
32. Which of the following does not form an order in nature?
a) BIO b) Animal c) Consciousness d) Human
33. Which of the following statements is true,
a) Material units have only two kinds of activities recognizing and fulfilling
b) Material units have three kinds of activities assuming, recognizing and fulfilling
c) Material units have only four kinds of activities knowing, assuming, recognizing and fulfilling
d) None of the statement
34. Which of the following statement is not true?
a) There is inter connectedness in nature
b) There is recyclability and self regulation in nature
c) There is struggle for survival in nature
d) There is mutual fulfillment in nature
35. According to quantity, which of the following is true for the orders in nature
a) Bio order >> Physical order >> Animal order >> Human order
b) Animal order >> Bio order >> Physical order >> Human order
c) Physical order >> Bio order >> Animal order >> Human order
d) None of the above
36. What are the fundamental components of ecosystems?
a) Plants and Animals b) Air and water
c) Rocks and minerals d) All of these

37. The third order of nature is
a) Material order b) Animal order c) Plant order d) Human order
38. The activities in human body are
a) Composition b) Decomposition c) Respiration d) All of these
39. The systems in nature are
a) Cyclic b) Mutually fulfilling
c) Both a and b d) None of these
40. The natural characteristics/Svabhava of a human being are
a) Perseverance b) Bravery c) Generosity d) All of these
41. The only effective way to ensure professional ethics is by developing
a) Knowledge b) Ethical conduct
c) Ethical competence d) Professional activities
42. How does unethical practices in various professions can be resolved
a) Through skills b) Through knowledge
c) Through practical d) Via right understanding
43. What provides clear guidance and policy frame work conducive to the development of an un-fragmented human society and a universal human order
a) Humanistic education b) Humanistic constitution
c) Profession d) Ethical Human conduct
44. The right understanding gained through self exploration also enables us to identify the definitiveness of human conduct. What is this called?
a) Ethical Human conduct b) Values
c) Policy d) Utility values
45. Primary step to move towards the holistic alternative is to develop the right understanding among humans and the commitment to
a) Do practical b) Remain calm c) Live accordingly d) Teach others
46. The right understanding helps us identify the comprehensive human goal in terms of
a) Samadhan b) Samridhi c) Sah-astitva d) All of these
47. The humanistic education will facilitate the process of self exploration which will lead to continuous
a) Education b) Self evolution c) Development d) People friendly
48. The values of human being can be enumerated as
a) Nine b) Thirty c) Eighteen d) Twenty four
49. Which of the following is not a characteristic of professionalism?
a) Kindness b) Competency c) Morality d) Complacency
50. There are six characteristics of a professional style which is not a professional style?
a) Ethical b) Emotional c) Responsible d) Intellectual.

* * * * *

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : B

Fourth Semester B.E. Degree Examination, June/July 2024 Universal Human Values Course

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
1. The only effective way to ensure professional ethics is by developing

a) Knowledge	b) Ethical conduct
c) Ethical competence	d) Professional activities
 2. How does unethical practices in various professions can be resolved

a) Through skills	b) Through knowledge
c) Through practical	d) Via right understanding
 3. What provides clear guidance and policy frame work conducive to the development of an unfragmented human society and a universal human order

a) Humanistic education	b) Humanistic constitution
c) Profession	d) Ethical Human conduct
 4. The right understanding gained through self exploration also enables us to identify the definitiveness of human conduct. What is this called?

a) Ethical Human conduct	b) Values
c) Policy	d) Utility values
 5. Primary step to move towards the holistic alternative is to develop the right understanding among humans and the commitment to

a) Do practical	b) Remain calm
c) Live accordingly	d) Teach others
 6. The right understanding helps us identify the comprehensive human goal in terms of

a) Samadhan	b) Samridhi	c) Sah-astitva	d) All of these
-------------	-------------	----------------	-----------------

7. The humanistic education will facilitate the process of self exploration which will lead to continuous
 - a) Education
 - b) Self evolution
 - c) Development
 - d) People friendly
8. The values of human being can be enumerated as
 - a) Nine
 - b) Thirty
 - c) Eighteen
 - d) Twenty four
9. Which of the following is not a characteristic of professionalism?
 - a) Kindness
 - b) Competency
 - c) Morality
 - d) Complacency
10. There are six characteristics of a professional style which is not a professional style?
 - a) Ethical
 - b) Emotional
 - c) Responsible
 - d) Intellectual.
11. All the units of nature can be classified into _____ orders
 - a) Two
 - b) Three
 - c) Four
 - d) Six
12. Which of the following does not form an order in nature?
 - a) BIO
 - b) Animal
 - c) Consciousness
 - d) Human
13. Which of the following statements is true,
 - a) Material units have only two kinds of activities recognizing and fulfilling
 - b) Material units have three kinds of activities assuming, recognizing and fulfilling
 - c) Material units have only four kinds of activities knowing, assuming, recognizing and fulfilling
 - d) None of the statement
14. Which of the following statement is not true?
 - a) There is inter connectedness in nature
 - b) There is recyclability and self regulation in nature
 - c) There is struggle for survival in nature
 - d) There is mutual fulfillment in nature
15. According to quantity, which of the following is true for the orders in nature
 - a) Bio order >> Physical order >> Animal order >> Human order
 - b) Animal order >> Bio order >> Physical order >> Human order
 - c) Physical order >> Bio order >> Animal order >> Human order
 - d) None of the above
16. What are the fundamental components of ecosystems?
 - a) Plants and Animals
 - b) Air and water
 - c) Rocks and minerals
 - d) All of these
17. The third order of nature is
 - a) Material order
 - b) Animal order
 - c) Plant order
 - d) Human order
18. The activities in human body are
 - a) Composition
 - b) Decomposition
 - c) Respiration
 - d) All of these
19. The systems in nature are
 - a) Cyclic
 - b) Mutually fulfilling
 - c) Both a and b
 - d) None of these
20. The natural characteristics/Svabhava of a human being are
 - a) Perseverance
 - b) Bravery
 - c) Generosity
 - d) All of these

21. Harmony should be maintained in
 - a) Between body and life
 - b) Between self and society
 - c) Between life and environment
 - d) All of these
22. I being the
 - a) does, seer and Enjoyer
 - b) doer
 - c) seer
 - d) enjoyer
23. Which of the following is NOT response of the self?
 - a) Knowing
 - b) Assuming
 - c) Recognizing
 - d) Preconditioning
24. Activities of self (I) are
 - a) Happiness
 - b) Prosperity
 - c) Desire, thought and expectation
 - d) None
25. The requirement of body is right utilization and nurturing
 - a) Desire
 - b) Protection
 - c) Thought
 - d) Expectation
26. The _____ is an instrument of _____
 - a) I, Body
 - b) Body, I
 - c) Both a and b
 - d) None
27. The activity of desire, thought and expecting together is called as
 - a) Body
 - b) Health
 - c) Imagination
 - d) Future
28. Imaging is _____ with time
 - a) Continuous
 - b) Discontinuous
 - c) Random
 - d) Different
29. Where there is harmony among the parts of the body it is known as
 - a) Swasthya
 - b) Sanyam
 - c) Prosperity
 - d) None
30. Knowing means having the
 - a) Assumption
 - b) Right understanding
 - c) Right feeling
 - d) None
31. The purpose of value –Education is to
 - a) Foster universal core values
 - b) Make syllabus easy
 - c) Develop values in individual
 - d) Both A and C
32. Self exploration uses two mechanisms i) Natural Acceptance ii) -----?
 - a) Experiential validation
 - b) Reason
 - c) Logical Thinking
 - d) Theoretical concept
33. Once we know what is valuable to us, these values becomes the basis, the anchor for _____
 - a) Knowledge
 - b) Actions
 - c) Society
 - d) None of these
34. To fulfill Human Aspirations, what are necessary
 - a) Both values and skills
 - b) Values
 - c) Skills
 - d) None of these

35. Which the following are the encompassing principles underlying the successful implementation of value education?
 A) Conviction B) Connection C) Critical thinking D) Commitment
 choose the most appropriate answer from the options given below :
 a) A, C and D only b) B, C and D only c) A, B and D only d) None of these
36. Value and skills should go hand in hand
 a) True b) False c) Cannot tell d) None of these
37. Are the content of self – exploration
 a) Program b) Desire c) Both a and b d) None
38. Human life is lived at four levels individual, Family, Society and _____
 a) Nature b) Nurture c) World d) Universe
39. Any course content on value education needs to be
 a) Universal b) Rational c) Natural d) All of these
40. Value education enables us to
 a) To understand our needs b) Visualize our goals correctly
 c) Indicate the direction for their fulfillment d) All of these
41. Harmony should be maintained in
 a) Between body and life b) Between self and society
 c) Between life and environment d) All of these
42. The foundational value in relationship is
 a) Respect b) Love c) Trust d) Glory
43. Ensuring right understanding and feeling in the others is called
 a) Care b) Affection c) Gratitude d) Guidance
44. Harmony in the family is the building block for harmony in the
 a) Society b) Individual c) Friend d) Relative
45. The total numbers of feelings in human relationship
 a) 5 b) 10 c) 9 d) 8
46. Comprehensive human goal is right understanding prosperity, trust (fearlessness) and
 a) Co-existence b) Happiness c) Abhay d) None
47. There is justice in relationship when there is
 a) Mutual fulfillment b) Self regulation c) Freedom d) None
48. The extension of family is
 a) Self b) Body c) Society d) Nature
49. The feeling of relatedness to all human beings is called
 a) Love b) Affection c) Gratitude d) Respect
50. Acceptance of excellence in others is called
 a) Reverence b) Glory c) Gratitude d) Guidance

* * * * *

Ver-B – 4 of 4

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : C

Fourth Semester B.E./B.Tech. Degree Examination, June/July 2024
Universal Human Values Course

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
- 1 All the units of nature can be classified into _____ orders
a) Two b) Three c) Four d) Six
 - 2 Which of the following does not form an order in nature?
a) BIO b) Animal c) Consciousness d) Human
 - 3 Which of the following statements is true,
a) Material units have only two kinds of activities recognizing and fulfilling
b) Material units have three kinds of activities assuming, recognizing and fulfilling
c) Material units have only four kinds of activities knowing, assuming, recognizing and fulfilling
d) None of the statement
 - 4 Which of the following statement is not true?
a) There is inter connectedness in nature
b) There is recyclability and self regulation in nature
c) There is struggle for survival in nature
d) There is mutual fulfillment in nature
 - 5 According to quantity, which of the following is true for the orders in nature
a) Bio order >> Physical order >> Animal order >> Human order
b) Animal order >> Bio order >> Physical order >> Human order
c) Physical order >> Bio order >> Animal order >> Human order
d) None of the above

- 21 The only effective way to ensure professional ethics is by developing
 a) Knowledge b) Ethical conduct
 c) Ethical competence d) Professional activities
- 22 How does unethical practices in various professions can be resolved
 a) Through skills b) Through knowledge
 c) Through practical d) Via right understanding
- 23 What provides clear guidance and policy frame work conducive to the development of an un-fragmented human society and a universal human order
 a) Humanistic education b) Humanistic constitution
 c) Profession d) Ethical Human conduct
- 24 The right understanding gained through self exploration also enables us to identify the definitiveness of human conduct. What is this called?
 a) Ethical Human conduct b) Values
 c) Policy d) Utility values
- 25 Primary step to move towards the holistic alternative is to develop the right understanding among humans and the commitment to
 a) Do practical b) Remain calm c) Live accordingly d) Teach others
- 26 The right understanding helps us identify the comprehensive human goal in terms of
 a) Samadhan b) Samridhi c) Sah-astitva d) All of these
- 27 The humanistic education will facilitate the process of self exploration which will lead to continuous
 a) Education b) Self evolution c) Development d) People friendly
- 28 The values of human being can be enumerated as
 a) Nine b) Thirty c) Eighteen d) Twenty four
- 29 Which of the following is not a characteristic of professionalism?
 a) Kindness b) Competency c) Morality d) Complacency
- 30 There are six characteristics of a professional style which is not a professional style?
 a) Ethical b) Emotional c) Responsible d) Intellectual.
- 31 Harmony should be maintained in
 a) Between body and life
 b) Between self and society
 c) Between life and environment
 d) All of the above
- 32 The foundational value in relationship is
 a) Respect b) Love c) Trust d) Glory
- 33 Ensuring right understanding and feeling in the others is called
 a) Care b) Affection c) Gratitude d) Guidance
- 34 Harmony in the family is the building block for harmony in the
 a) Society b) Individual c) Friend d) Relative
- 35 The total numbers of feelings in human relationship
 a) 5 b) 10 c) 9 d) 8

- 36 Comprehensive human goal is right understanding prosperity, trust (fearlessness) and
a) Co-existence b) Happiness c) Abhay d) None
- 37 There is justice in relationship when there is
a) Mutual fulfillment b) Self regulation c) Freedom d) None
- 38 The extension of family is
a) Self b) Body c) Society d) Nature
- 39 The feeling of relatedness to all human beings is called
a) Love b) Affection c) Gratitude d) Respect
- 40 Acceptance of excellence in others is called
a) Reverence b) Glory c) Gratitude d) Guidance
- 41 Harmony should be maintained in
a) Between body and life
b) Between self and society
c) Between life and environment
d) All of these
- 42 I being the
a) does, seer and Enjoyer b) doer
c) seer d) enjoy
- 43 Which of the following is NOT response of the self?
a) Knowing b) Assuming
c) Recognizing d) Preconditioning
- 44 Activities of self (I) are
a) Happiness b) Prosperity
c) Desire, thought and expectation d) None
- 45 The requirement of body is right utilization and nurturing
a) Desire b) Protection c) Thought d) Expectation
- 46 The _____ is an instrument of _____
a) I, Body b) Body, I c) Both a and b d) None
- 47 The activity of desire, thought and expecting together is called as
a) Body b) Health c) Imagination d) Future
- 48 Imaging is _____ with time
a) Continuous b) Discontinuous c) Random d) Different
- 49 Where there is harmony among the parts of the body it is known as
a) Swasthya b) Sanyam c) Prosperity d) None
- 50 Knowing means having the
a) Assumption
b) Right understanding
c) Right feeling
d) None

* * * * *

Ver-C – 4 of 4

USN

--	--	--	--	--	--	--	--	--	--

Question Paper Version : D

Fourth Semester B.E./B.Tech. Degree Examination, June/July 2024 Universal Human Values Course

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners** on the **OMR** sheets are strictly prohibited.

-
- 1 Harmony should be maintained in
 - a) Between body and life
 - b) Between self and society
 - c) Between life and environment
 - d) All of the above
 - 2 The foundational value in relationship is

a) Respect	b) Love	c) Trust	d) Glory
------------	---------	----------	----------
 - 3 Ensuring right understanding and feeling in the others is called

a) Care	b) Affection	c) Gratitude	d) Guidance
---------	--------------	--------------	-------------
 - 4 Harmony in the family is the building block for harmony in the

a) Society	b) Individual	c) Friend	d) Relative
------------	---------------	-----------	-------------
 - 5 The total numbers of feelings in human relationship

a) 5	b) 10	c) 9	d) 8
------	-------	------	------
 - 6 Comprehensive human goal is right understanding prosperity, trust (fearlessness) and

a) Co-existence	b) Happiness	c) Abhay	d) None
-----------------	--------------	----------	---------
 - 7 There is justice in relationship when there is

a) Mutual fulfillment	b) Self regulation	c) Freedom	d) None
-----------------------	--------------------	------------	---------
 - 8 The extension of family is

a) Self	b) Body	c) Society	d) Nature
---------	---------	------------	-----------

Ver-D – 1 of 4

- 9 The feeling of relatedness to all human beings is called
a) Love b) Affection c) Gratitude d) Respect
- 10 Acceptance of excellence in others is called
a) Reverence b) Glory c) Gratitude d) Guidance
- 11 The only effective way to ensure professional ethics is by developing
a) Knowledge b) Ethical conduct
c) Ethical competence d) Professional activities
- 12 How does unethical practices in various professions can be resolved
a) Through skills b) Through knowledge
c) Through practical d) Via right understanding
- 13 What provides clear guidance and policy frame work conducive to the development of an un-fragmented human society and a universal human order
a) Humanistic education b) Humanistic constitution
c) Profession d) Ethical Human conduct
- 14 The right understanding gained through self exploration also enables us to identify the definitiveness of human conduct. What is this called?
a) Ethical Human conduct b) Values c) Policy d) Utility values
- 15 Primary step to move towards the holistic alternative is to develop the right understanding among humans and the commitment to
a) Do practical b) Remain calm c) Live accordingly d) Teach others
- 16 The right understanding helps us identify the comprehensive human goal in terms of
a) Samadhan b) Samridhi c) Sah-astitva d) All of these
- 17 The humanistic education will facilitate the process of self exploration which will lead to continuous
a) Education b) Self evolution c) Development d) People friendly
- 18 The values of human being can be enumerated as
a) Nine b) Thirty c) Eighteen d) Twenty four
- 19 Which of the following is not a characteristic of professionalism?
a) Kindness b) Competency c) Morality d) Complacency
- 20 There are six characteristics of a professional style which is not a professional style?
a) Ethical b) Emotional c) Responsible d) Intellectual.
- 21 All the units of nature can be classified into _____ orders
a) Two b) Three c) Four d) Six
- 22 Which of the following does not form an order in nature?
a) BIO b) Animal c) Consciousness d) Human
- 23 Which of the following statements is true,
a) Material units have only two kinds of activities recognizing and fulfilling
b) Material units have three kinds of activities assuming, recognizing and fulfilling
c) Material units have only four kinds of activities knowing, assuming, recognizing and fulfilling
d) None of the statement

- 24 Which of the following statement is not true?
 a) There is inter connectedness in nature
 b) There is recyclability and self regulation in nature
 c) There is struggle for survival in nature
 d) There is mutual fulfillment in nature
- 25 According to quantity, which of the following is true for the orders in nature
 a) Bio order >> Physical order >> Animal order >> Human order
 b) Animal order >> Bio order >> Physical order >> Human order
 c) Physical order >> Bio order >> Animal order >> Human order
 d) None of the above
- 26 What are the fundamental components of ecosystems?
 a) Plants and Animals
 b) Air and water
 c) Rocks and minerals
 d) All of these
- 27 The third order of nature is
 a) Material order
 b) Animal order
 c) Plant order
 d) Human order
- 28 The activities in human body are
 a) Composition
 b) Decomposition
 c) Respiration
 d) All of these
- 29 The systems in nature are
 a) Cyclic
 b) Mutually fulfilling
 c) Both a and b
 d) None of these
- 30 The natural characteristics/Svabhava of a human being are
 a) Perseverance
 b) Bravery
 c) Generosity
 d) All of these
- 31 Harmony should be maintained in
 a) Between body and life
 b) Between self and society
 c) Between life and environment
 d) All of the above
- 32 I being the
 a) does, seer and Enjoyer
 b) doer
 c) seer
 d) enjoyer
- 33 Which of the following is NOT response of the self?
 a) Knowing
 b) Assuming
 c) Recognizing
 d) Preconditioning
- 34 Activities of self (I) are
 a) Happiness
 b) Prosperity
 c) Desire, thought and expectation
 d) None
- 35 The requirement of body is right utilization and nurturing
 a) Desire
 b) Protection
 c) Thought
 d) Expectation
- 36 The _____ is an instrument of _____
 a) I, Body
 b) Body, I
 c) Both a and b
 d) None
- 37 The activity of desire, thought and expecting together is called as
 a) Body
 b) Health
 c) Imagination
 d) Future

- 38 Imaging is _____ with time
a) Continuous b) Discontinuous c) Random d) Different
- 39 Where there is harmony among the parts of the body it is known as
a) Swasthya b) Sanyam c) Prosperity d) None
- 40 Knowing means having the
a) Assumption b) Right understanding
c) Right feeling d) None
- 41 The purpose of value –Education is to
a) Foster universal core values
b) Make syllabus easy
c) Develop values in individual
d) Both A and C
- 42 Self exploration uses two mechanisms i) Natural Acceptance ii) -----?
a) Experiential validation b) Reason
c) Logical Thinking d) Theoretical concept
- 43 Once we know what is valuable to us, these values becomes the basis, the anchor for _____
a) Knowledge b) Actions c) Society d) None of these
- 44 To fulfill Human Aspirations, what are necessary
a) Both values and skills b) Values
c) Skills d) None of these
- 45 Which the following are the encompassing principles underlying the successful implementation of value education?
A) Conviction B) Connection C) Critical thinking D) Commitment
choose the most appropriate answer from the options given below :
a) A, C and D only b) B, C and D only c) A, B and D only d) None of these
- 46 Value and skills should go hand in hand
a) True b) False c) Cannot tell d) None of these
- 47 Are the content of self – exploration
a) Program b) Desire c) Both a and b d) None
- 48 Human life is lived at four levels individual, Family, Society and _____
a) Nature b) Nurture c) World d) Universe
- 49 Any course content on value education needs to be
a) Universal b) Rational c) Natural d) All of these
- 50 Value education enables us to
a) To understand our needs
b) Visualize our goals correctly
c) Indicate the direction for their fulfillment
d) All of the above

* * * * *

Ver-D – 4 of 4