

HSEE 2021

Question Paper

HUMANITEIS & SOCIAL SCIENCES ENTRANCE EXAMINATION-2021
INDIAN INSTITUTE OF TECHNOLOGY MADRAS

Part –I: HSEE-2021 contains 144 multiple choice questions in this part. Total mark is 144.

Answer to each question will be evaluated according to the following marking scheme:

- Full Marks* : +1 If the correct option is chosen
Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered)
Negative Marks : –0.25 If an incorrect option is chosen.

Total time for Part I is 150 minutes (09.00 am to 11:30 am).

Section 1: English and Comprehension Skill	(36 questions)
Section 2: Analytical & Quantitative Ability	(36 question)
Section 3 (a): General Studies-Indian Economy	(18 questions)
Section 3 (b): General Studies-Indian Society and Culture	(18 questions)
Section 3 (c): General Studies-World Affairs	(18 questions)
Section 3 (d): General Studies-Environmental and Ecology	(18 questions)

Section 1: English and Comprehension Skill

Read the given passage and answer the following questions (Subsequent 5 questions are based on the passage).

A game of strategy, as currently conceived in game theory, is a situation in which two or more 'players' make choices among available alternatives (moves). The totality of choices determines the outcomes of the game, and it is assumed that the rank order of preferences for the outcomes is different for different players. Thus the 'interests' of the players are generally in conflict.

Whether these interests are diametrically opposed or only partially opposed depends on the type of the game. Psychologically, most interesting situations arise when the interests of the players are partly coincident and partly opposed, because then one can postulate not only a conflict among the players but also inner conflicts within the players.

Internal conflicts are always psychologically interesting. What we vaguely call 'interesting' psychology is in very great measure the psychology of inner conflict. Inner conflict is also held to be an important component of serious literature as distinguished from less serious genres. The classical tragedy, as well as the serious novel, reveals the inner conflict of central figures. The superficial adventure story, on the other hand, depicts only external conflict; that is, the threats to the person with whom the reader identifies them in these stories are exclusively from external obstacles and from the adversaries who create them. On the most primitive level this sort of external conflict is psychologically empty. In the fisticuffs between the protagonists of good and evil, no psychological problems are involved or, at any rate, none are depicted in juvenile representations of conflict.

The detective story, the 'adult' analogue of a juvenile adventure tale, has at times been described as a glorification of intellectualized conflict. But the conflict is psychologically interesting only to the extent that it contains irrational components such as tactical error on the criminal's part or the detective's insight into some psychological quirk of the criminal. Conflict conducted in a perfectly rational manner is psychologically not very interesting. In short, a pure conflict of interest although it offers a wealth of interesting conceptual problems, is not interesting psychologically, except to the extent that its conduct departs from rational norms.

1. What determines the outcome of the game according to game theory?

1. Sum of choices
2. Psychology of individual players
3. External impediments
4. Internal irresolutions

2. When is the situation most interesting psychologically, according to game theory?

1. The sparring between good and evil
2. Engaging in adventure story
3. Simultaneous situation of partial coincidence as well as opposition
4. Psychological liquidation

3. What genres of literature reveal inner conflict according to game theory?

1. Modern tragedy and adventure story
2. Classical tragedy and serious novel
3. Psychological drama and conflict literature
4. Detective story and juvenile adventure

4. What sub-genre in literature exemplifies cerebral confusion?

1. Adult literature
2. Adventure tale
3. Adolescent literature
4. Detective story

5. What do irrational components contribute to conflict?

1. Departure from tension
2. Psychological interest
3. Anticlimax in action
4. Conceptual confusion

Read the following extract and answer the questions given below (Subsequent 5 questions are based on the passage)

The winter evening settles down
With smell of steaks in passageways,
Six o'clock.
The burnt-out ends of smoky days.
And now a gusty shower wraps
The grimy scraps
Of withered leaves about your feet
And newspapers from vacant lot
The showers beat
On broken blinds and chimney-pots
And at the corner of the street
A lonely cab-horse steams and stamps
And then the lighting of the lamps.

6. What kind of mood is depicted in the extract above?

1. Derogatory
 2. Celebratory
 3. Carnavalesque
 4. Gloomy
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7. What is the figure of speech used in "**the burnt-out ends of smoky days**"?
1. Metaphysical wit
 2. Conceit
 3. Dead metaphor
 4. Metonymy
8. What does the clock time in the passage indicate symbolically?
1. Twilight
 2. Punctuality
 3. Exhaustion
 4. Productivity
9. What does the "**lonely cab-horse**" indicate symbolically?
1. Alienation and immobility
 2. Vigour and velocity
 3. Strength and superiority
 4. Beauty and symmetry
10. Choose the most appropriate option that can act as antonym of the underlined word.
She knew it was that that had given her the palpitations.
1. Nervousness
 2. Hysteria
 3. Calmness
 4. Trepidation
11. Choose the most appropriate option that can act as antonym of the underlined word.
He talked with her paternally, and dogmatically, with a touch of arbitrariness.
1. Wantonness
 2. Capriciousness
 3. Absurdity
 4. Sequentiality
12. Choose the most appropriate option that can act as synonym of the underlined word.
The officer seats himself in the sleigh, and brandishes it.
1. Conceals
 2. Wields
 3. Consumes
 4. Abandons

13. Which of the following words can most appropriately act as synonym of the word '**despondence**'.

1. Euphoria
2. Melancholia
3. Uncanny
4. Tyranny

14. Identify the figure of speech used in this sentence.

"Soft language issued from their spitless lips as they swished".

1. Assonance
2. Malapropism
3. Litotes
4. Chiasmus

15. Identify the figure of speech used in this sentence.

"It is not that they did not know the outcome of the event but still chose to proceed".

1. Tautology
2. Anticlimax
3. Litotes
4. Asyndeton

16. Identify the figure of speech used in this sentence.

"Ten thousand saw I at a glance".

1. Polysyndeton
2. Climax
3. Alliteration
4. Hyperbole

17. Choose the sentence with the correct use of punctuation among the following options.

1. Turning she saw the amusement in my eyes, her own lit up, with rare and lovely laughter.
2. Turning she saw; the amusement in my eyes: her own lit up with rare and lovely laughter.
3. Turning, she saw the amusement in my eyes; her own lit up with rare and lovely laughter.
4. Turning she saw the amusement: in my eyes; her own lit up with rare and lovely laughter.

18. Choose the most appropriate question tag for the following:

You will still be there after I come back from work, _____

1. won't you?
2. will you?
3. haven't you?
4. would you?

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19. Choose the most appropriate question tag for the following:

Let us have another go at it, _____

1. will we?
2. won't we?
3. haven't we?
4. shall we?

20. Choose the correct spelling from the given options.

1. Locqacous
2. Loquicous
3. Loqasious
4. Loquacious

21. Choose the correct spelling from the given options.

1. Annahilitation
2. Annihilation
3. Anihilation
4. Annihalation

22. Pick the most appropriate option from the following and fill in the blanks:

They used to be very good friends but now they have fallen _____.

1. in
2. over
3. out
4. under

23. Pick the most appropriate option from the following and fill in the blanks:

He fought his opponent for as long as he could but in the end he had to give _____.

1. around
2. away
3. in
4. over

24. Pick the most appropriate sequence of articles from the following options and fill in the blanks:

_____ next door boy found _____ two-rupee note while playing in _____ neighbourhood park.

1. a, a, the
2. the, an, a
3. the, a, the
4. the, an, the

25. Pick the most appropriate sequence of articles from the following options and fill in the blanks:

She became ____ Principal of ____ one-year old college in ____ year 1981.

1. the, a, the
2. the, an, an
3. a, the, the
4. a, the, an

26. In the given sentence, pick the most appropriate meaning of the underlined idiom from the following options:

The two teams have been playing against each other across all formats of the game and there is no love lost between the players.

1. No love is lost
2. There is no love
3. There is endless love
4. There is great love for the game

27. In the given sentence, pick the most appropriate meaning of the underlined idiom from the following options:

She was a specialist in making low-cost candles but she burnt her fingers by botching up a big order.

1. Her fingers got burnt
2. She burnt the candles while making those
3. She burnt the order documents
4. She got into trouble while engaging with this business

28. Pick the most appropriate form of Indirect Speech of the given sentence from the following options:

Our parents said to us, "**Were you at home last night?**"

1. Our parents ordered us to be at home last night.
2. Our parents asked us if we were at home the night before.
3. Our parents had requested us to stay at home the night before.
4. Our parents figured out that we were not at home the night before.

29. Pick the most appropriate Passive form for the sentence provided below:

When will you return the borrowed bat?

1. Will you return the bat you borrowed?
2. You will not return the bat you borrowed.
3. When the borrowed bat will be returned?
4. When will the borrowed bat be returned?

30. Pick the most appropriate Passive form for the sentence provided below:

Why did your cousin write such a story?

1. Why was such a story written by your cousin?
2. Why was your cousin writing such a story?
3. Was such a story written by your cousin?
4. Did your cousin write such a story?

31. Identify the correct part of speech of the underlined word from the following sentence:

Our team went away after the closing song was sung.

1. Adverb
2. Preposition
3. Conjunction
4. Adjective

32. Identify the correct part of speech of the underlined word from the following sentence:

The horse was standing all alone when we finally spotted it.

1. Preposition
2. Adverb
3. Adjective
4. Pronoun

33. Identify the correct part of speech of the underlined word from the following sentence:

Despite being tired, we ran as quickly as we could.

1. Adverb
2. Conjunction
3. Preposition
4. Adjective

34. Choose the most grammatically correct sentence from the following options.

1. If I was a superhero I could get rid of all poverty in the world.
2. If I were a superhero I would get rid of all poverty in the world.
3. If I became a superhero I would get rid of all poverty in the world.
4. If I am a superhero I will get rid of all poverty in the world.

35. Choose the most grammatically correct sentence from the following options.

1. The team started with a lot of energy but they are running out of steam.
2. The team started with a lot of energy but they are running into steam.
3. The team started with a lot of energy but they are running on steam.
4. Because the team started with a lot of energy they are running into steam.

36. Which of the following prefixes can be added to the word "**done**"?

1. no
2. be
3. un
4. mis

Section 2: Analytical and Quantitative Ability

Next two questions should be answered based on the following statements:

If the professor is well today, there is a class today.

If the professor is not well today, Jay can go to the gym.

If there is a class today, Jay cannot watch a movie.

If Jay cannot watch a movie, the world will be a happy place.

Jay cannot go to the gym.

37. Which one of the following is a valid conclusion based on the statements above?

1. Jay cannot watch a movie.
2. The world will not be a happy place.
3. The professor is not well today.
4. There is no class today.

38. Suppose in the set of statements above,

"Jay cannot go to the gym"

is replaced with

"The professor is well today",

which of the following is NOT a valid conclusion?

1. There is a class today.
2. Jay cannot watch a movie.
3. The world will be a happy place.
4. Jay can go to the gym today.

Next three questions are based on the data given below:

The following table lists the stock prices of companies V, W, X and Y for the last five years.

Year Company	2015	2016	2017	2018	2019
V	100	95	102	110	120
W	50	30	45	75	110
X	40	35	55	70	90
Y	20	30	25	85	70

39. Find the number of companies whose share prices achieved an average compounded growth rate of at least 20%
- 1
 - 2
 - 3
 - 4
40. Which of the companies has the highest compounded average growth rate?
- V
 - W
 - X
 - Y
41. Which of the stocks had the highest growth from year 2016 to 2017?
- W
 - V
 - X
 - Y
42. The sum of all distinct prime factors of 100 (excluding multiplicities) is
- 7
 - 8
 - 29
 - 28

43. Consider the following statements:

- I. There are infinitely many natural numbers n such that for all $a \in \{1, \dots, n-1\}$ there is an integer b with the property $a \cdot b \equiv 1 \pmod{n}$.
- II. For any natural number $n \geq 2$ and any $a \in \{0, \dots, n-1\}$ there is an integer c such that $a + c \equiv 0 \pmod{n}$.

Which of the above statements is/are TRUE?

1. I only
2. II only
3. Neither I nor II
4. Both I and II

44. Which of the following is NOT a factor of $x^4 - 2x^2 + 1$?

1. $x-1$
2. $x+1$
3. x^2-1
4. x^2+1

45. Suppose x and y are two natural numbers. Let $a = LCM(x, y)$ and $b = HCF(x, y)$. Consider the following statements:

- I. Given a and b , the values of x and y can be determined uniquely.
- II. Given a and b , all common prime factors between x and y can be determined uniquely.

Which of the above statements is TRUE?

1. I only
2. II only
3. Both I and II
4. Neither I nor II

46. Area of a circle is increased by 44% when the radius is increased by $x\%$. The value of x is

1. 10
2. 20
3. 30
4. 44

47. Suppose there are six people in a room such that any pair is either friends of each other or enemies of each other. Consider the following statements:

I. There are at least three people who are mutual enemies.

II. There are at least three people who are mutual friends.

Which of the statements is/are always TRUE?

1. Both I and II
2. At least one of I and II
3. I only
4. II only

48. Which of the options is always a composite number for any prime number p ?

1. p^2+1
2. $2p+3$
3. 2^p+1
4. $p^{2^p}-2p$

49. Solve the system of linear equations

$$7x + 6y = 66$$

$$3x + 2y = 26$$

Choose a solution from the following options.

1. $x = 4$ and $y = 6$
2. $x = 6$ and $y = 4$
3. $x = 4$ and $y = 7$
4. $x = 8$ and $y = 1$

50. The product of LCM and HCF of the numbers 20, 30 and 40 is

1. 800
2. 120
3. 1200
4. 600

51. Let $n \geq 200$ be a natural number. A number a is drawn uniformly at random from $\{1, \dots, n\}$. What is the probability that $a \geq 100$ and $a < 150$?

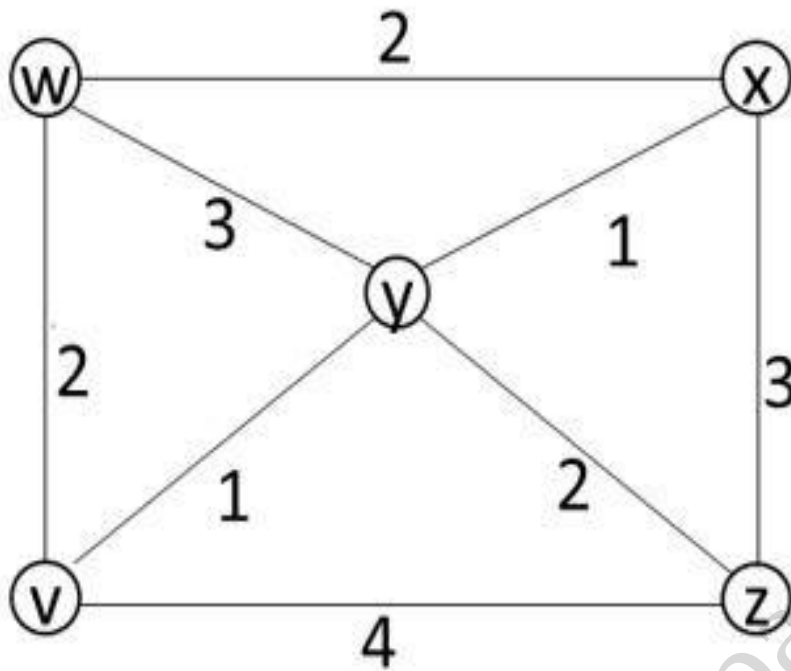
1. $100/n$
2. $150/n$
3. $1/n$
4. $50/n$

52. If a word is formed by permuting five letters (v, w, x, y and z), then what is the probability that the word begins with vw?
1. $4/20$
 2. $8/20$
 3. $1/20$
 4. $1/120$
53.
$$\frac{\sin 7\theta - \sin 5\theta}{\cos 7\theta + \cos 5\theta} = \text{_____}$$
1. $\sin \theta$
 2. $\sec \theta$
 3. $\tan \theta$
 4. $\cos \theta$
54. Persons X and Y have Rs 10,000 to share between them. Suppose X spends 10% of her money and Y spends 30% of his money. The total money left with them is 8000. What is the money left with Y?
1. Rupees 5000
 2. Rupees 7000
 3. Rupees 3500
 4. Rupees 3000
55. A coin exchange center has coins of 1, 2, 4 and 8 denominations. The least number of coins required to exchange 150 units of currency from this center is
1. 38
 2. 20
 3. 18
 4. 21
56. If x and y are two odd positive integers, which of the following is NOT an odd number?
1. x^y
 2. x^{2y}
 3. $(x+y)^y$
 4. $(xy)^y$

57. A plane is flying at 720 kilometers per hour. Its speed in meters per second is
1. 120
 2. 200
 3. 180
 4. 300
58. The areas of two similar triangles are 36cm^2 and 64cm^2 respectively. The ratio of their corresponding sides is
1. 3:4
 2. 5:4
 3. 2:3
 4. 5:6
59. A number x is represented as 11001 in the binary system. The decimal equivalent of x is
1. 25
 2. 15
 3. 19
 4. 31
60. A person performs $\frac{2}{7}$ of their journey by bike, $\frac{5}{20}$ by bus and 13 kms on foot. The total distance travelled is
1. 140kms
 2. 75kms
 3. 28kms
 4. 14kms
61. The next number in the sequence 4, 8, 32, 128 is
1. 512
 2. 2048
 3. 1024
 4. 384
62. Twelve people can finish a piece of work in 40 days. How many people are needed to finish the same work in 60 days?
1. 8
 2. 10
 3. 5

63. Suppose Ram and Shyam have Rupees 1000 each. Ram deposits his money in a bank with a simple interest of 10% while Shyam does the same with a compound interest of 10%. If interests are computed annually, the difference between their withdrawal amounts after four years (rounded off to the nearest integer) would be
1. Rupees 50
 2. Rupees 64
 3. Rupees 150
 4. Rupees 750
64. There are six people in a room. What is the total number of ways of choosing a four-member team with one of them designated as the chairman?
1. 30
 2. 60
 3. 15
 4. $(36)^2$
65. Using only three given letters of the alphabet, the total number of words possible with exactly five characters is
1. 5^3
 2. 3^5
 3. 2^5
 4. 5^5
66. Suppose the manufacturer of a chair gains 20%, wholesale dealer 10% and the retailer 20%. If the retail price of the chair is 15840, the manufacturing cost of the chair is
1. 10000
 2. 1000
 3. 12000
 4. 9000
67. Let X, Y and Z be sets. Which one of the following is always TRUE?
1. $X \cap Y \subseteq X \cap Y \cap Z$
 2. $(X \cap Y) \cup Z \subseteq (X \cup Z) \cap (Y \cup Z)$
 3. $(X \cup Y) - Z \neq (X - Z) \cup (Y - Z)$
 4. $X = (X \cup Y) \cup (Y - X)$

68. Suppose the following diagram depicts the road network between five cities named V, W, X, Y and Z. A line between two cities indicates a direct road connection and the cost of driving along the road is given as its label.



Sudhi wants to start from city W and return to W after visiting every city only once. The minimum cost Sudhi incurs to achieve his goal is

1. 8
 2. 10
 3. 11
 4. 13
69. The fees (in lakhs of rupees) collected by a school in the last five years is 2, 4, 3, 5 and 6. What is the variance?
1. 18
 2. 4
 3. 16
 4. 2
70. A student has an average of 40 marks in four exams. How much should she score in the fifth exam so that her average across five exams is 45?
1. 45
 2. 60
 3. 65

71. The LCM of $(x+1)$, $(x-1)$ and $(2x^2+x-1)$ is

1. x^3-1
2. $2x^3 - x^2 - 2x + 1$
3. $2x^3 + x^2 - 2x + 1$
4. $2x^3 - x^2 + 2x - 1$

72. The length of the minute hand of a clock is 20cm. The distance traveled by the outer end of the hand in 24 minutes is

1. 16π
2. 20π
3. 8π
4. $4\pi/3$

Section 3: Indian Economy

73. What is the unit of measurement of **price elasticity of demand**?

1. Unit in which price is measured
2. Unit in which quantity is measured
3. Simply monetary unit (e.g., ₹, \$, £, €, etc.)
4. It is simply a number without any unit of measurement

74. What do we measure in two axes while drawing production possibility frontier of a country?

1. Quantity of a producible commodity in one axis and its price in the other axis
2. Quantity of a producible commodity in one axis and that of another in the other axis
3. Price of a producible commodity in one axis and national income in the other axis
4. Quantity of a producible commodity in one axis and technology in the other axis

75. Slope of the indifference curve of a consumer indicates

1. Market rate of substitution between the two commodities
2. Consumer's psychological rate of substitution between the two commodities
3. Price of the commodity which is measured in the horizontal axis
4. Price of the commodity which is measured in the vertical axis

76. Vertical gap between short-run average cost (SAC) and average variable cost (AVC) curves stands for

1. Total fixed cost (TFC)
2. Average fixed cost (AFC)
3. Short-run marginal cost (SMC)
4. A constant

77. Price elasticity of supply is 1 (unity) for a linear upward supply curve

1. Having positive vertical intercept
2. Having negative vertical intercept
3. Passing through the origin
4. A 45° line with non-zero vertical intercept

78. When both demand and supply curves shift rightward

1. Both equilibrium price and equilibrium quantity will surely rise
2. Equilibrium quantity will rise, but equilibrium price will surely fall
3. Equilibrium quantity will rise, but equilibrium price will surely remain the same
4. Equilibrium quantity will rise, but equilibrium price may rise, may remain the same or may even fall

79. The ratio of nominal GDP to real GDP is known as

1. Wholesale price index
2. GDP deflator
3. National disposable income
4. Net Domestic Product (NDP)

80. Which is not a monetary policy instrument of the Reserve Bank of India?

1. Deficit financing
2. Open market operations
3. Varying reserve requirements
4. Sterilization

81. The book **Wealth of Nations** was published in

1. 1776
2. 1836
3. 1919
4. 1936

82. Health hazard that a smoker causes to a non-smoker bystander is known as

1. Hands of God
2. Externality
3. Bad luck
4. Hospitality

83. Which of the following is a Kharif crop in India?

1. Tur
2. Rapeseeds
3. Barley
4. Mustard

84. **Golden Quadrilateral** is an Indian highway project to connect

1. Four big metro cities: Delhi, Kolkata, Chennai and Mumbai
2. '*Char Dham*' of Hindu religion
3. Kashmir with Kanyakumari, via the Golden Temple of Amritsar and the national capital
4. Kashmir with Kanyakumari, via the Golden Temple of Amritsar and the Kolkar gold mine

85. The Architect of India's five year planning is

1. Amartya Sen
2. Jagadish Bhagwati
3. P. C. Mahalanobis
4. C. R. Rao

86. 'To liberalize and opening-up of the economy' was a condition imposed on India in the early 1990s to avail loan from which of the following institutes?

1. Federal Reserve System of the United States of America (USA)
2. International Bank for Reconstruction and Development (IBRD)
3. Bank for International Settlement (BIS)
4. Asian Development Bank (ADB)

87. Which amongst the following years, India's per capita output of cereals and pulses was maximum?

1. 1971
2. 1981
3. 1991
4. 2011

88. Which is NOT a limitation of planning?

1. Planning may not work in a dynamic environment
2. Planning may reduce creativity
3. Planning doesn't guarantee success
4. Planning is pervasive

89. According to Dr. A. P. J. Abdul Kalam's **Vision 2020**, PURA stands for

1. Providing Uninterrupted Radio Connectivity to All
2. Providing Urban Amenities in Rural Areas
3. Providing Universally Developed Road Accessibility
4. Providing Purified Underground Water Resource Access of Every Indian

90. Which is not a valid Industrial Policy in India?

1. Industrial Policy Resolution 1956
2. Industrial Policy Statement 1977
3. Industrial Policy of 1980
4. Industrial Policy of 1987

Section 4: Indian Society and Culture

91. **The Remembered Village** is written by

1. T.N Madan
2. G. S. Ghurye
3. M.N. Srinivas
4. S. C. Dube

92. The historical city '**Vijayanagara**' is located on the banks of _____ river

1. Cauvery
2. Thungabhadra
3. Narmada
4. Godavari

93. **Svapnavasavadattam** is written by

1. Kalidasa
2. Bhāsa
3. Jayadeva
4. Amarasimha

94. Jean Drèze, a Belgian-born Indian scholar, is working in the field of

1. Development Economics
2. Environmental science
3. Native art forms
4. Sanskrit literature

95. Palagummi Sainath, the veteran journalist, is best known for his reports on
1. Women's issue
 2. Environmental issues
 3. Child right violations
 4. Rural and farmers' issues
96. Professor Andre Beteille is an Indian sociologist specialized in the field of
1. Environmental sociology
 2. Caste studies
 3. Urban studies
 4. Tribal studies
97. Late Padma Vibhushan B. V. K. Iyengar is known for his contribution in the field of
1. Tamil grammar
 2. Carnatic music
 3. Yoga
 4. Archaeology
98. Romila Thapar specializes in
1. History of ancient India
 2. Medieval history of India
 3. Modern history of India
 4. Colonial history of India
99. The 42nd Constitutional Amendment added the following term to its description of India
1. Sovereign
 2. Secular
 3. Democratic
 4. Republic
100. 'Mahaparinirvan Divas' commemorates the death of
1. Jyotirao Phule
 2. B. R. Ambedkar
 3. B. G. Tilak
 4. Vallabhai Patel

101. Sidhu Murmu and Kanhu Murmu were the leaders of which rebellion against the British

1. Bastar Rebellion
2. Mappila Rebellion
3. Chakma Rebellion
4. Santhal Rebellion

102. **Eastern Religions and Western Thought** is written by

1. S. Radhakrishnan
2. M. K. Gandhi
3. B. R. Ambedkar
4. B. G. Tilak

103. Anthropological Survey of India initiated _____ project in 1985 to document every community in India

1. A Study of Indian People
2. India's Communities
3. People of India
4. A Compendium of Indian Communities

104. Bandhani is a traditional form of _____ found in Gujarat and Rajasthan

1. Textile printing
2. Wall painting
3. Metal engraving
4. Woodwork

105. Sheldon Pollock is a renowned scholar of

1. Ancient architecture
2. Tamil
3. Sanskrit
4. Hindi

106. The battle of Chausa was fought during the reign of

1. Aurangzeb
2. Jahangir
3. Humayun
4. Akbar

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107. British scholars described _____ as 'Little Republics' of India.

1. Big cities
2. Villages
3. Small kingdoms
4. Caste panchayats

108. Indology is the study of Indian society through the analysis of

1. Ancient texts and scriptures
2. Data collected through fieldwork
3. Oral traditions
4. Archaeological evidences

Section 5: World Affairs

109. The year 2021 is a historic year for China as it celebrates

1. Centenary of the founding of the PRC
2. Centenary of the Great Leap Forward
3. Centenary of the Communist Party of China
4. Centenary of the Cultural Revolution

110. The ASEAN was established in 1967 by the following five original members:

1. Malaysia, the Philippines, Singapore, Thailand and Cambodia
2. Indonesia, Malaysia, the Philippines, Singapore and Thailand
3. Indonesia, Laos, Cambodia, the Philippines and Singapore
4. Singapore, Brunei, Indonesia, Malaysia and Vietnam

111. The agreement signed in 2004 January that promised the formation of a free trade zone for the whole of South Asia was called:

1. BIMSTEC
2. SAARC
3. SAFTA
4. BCIM

112. The landmark approach to environment accepted at the Earth Summit in the 1992 Rio Declaration is called:

1. Antarctic Treaty
2. The principle of 'common property resources'
3. The principle of 'common but differentiated responsibilities'
4. 'Polluter repays' principle

113. The acronym UNFCCC stands for

1. United Nations Fund for Critical Conflict Centers
2. United Nations Framework Convention on Climate Change
3. United Nations Funding for Critical Climate Change
4. United Nations for Financing Climate Change Concerns

114. The BRICS 'bank' is formally known as

1. Asian Infrastructure Investment Bank (AIIB)
2. International Bank for Reconstruction and Development (IBRD)
3. The New Development Bank (NDB)
4. Asian Development Bank (ADB)

115. The Treaty of Westphalia, which marks the beginning of the state system in its modern form, is dated to:

1. 1468
2. 1648
3. 1548
4. 1790

116. 'Nationalism is a great menace because it called for a "strenuous effort after strength and efficiency" and thereby "drains man's energy from his higher nature where he is self-sacrificing and creative"'. Whom are these words attributed to?

1. Arnold Toynbee
2. Karl W Deutsch
3. Rabindranath Tagore
4. Carlton JH Hayes

117. The International Bank for Reconstruction and Development and the International Monetary Fund were established as a result of

1. The Bretton Woods Conference (1944)
2. The Yalta Conference (1945)
3. The Moscow Conference (1943)
4. The Casablanca Conference (1943)

118. The autobiography, **Long Walk to Freedom**, is associated with the life of

1. Jawaharlal Nehru
2. Winston Churchill
3. Nelson Mandela
4. B. R. Ambedkar

119. Who articulated the following view on Peace: "I object to violence because when it appears to do good, the good is only temporary; the evil it does is permanent"

1. Nelson Mandela
2. Mahatma Gandhi
3. Martin Luther King
4. Kwame Nkrumah

120. India's full diplomatic ties with China after the 1962 war, were only restored in

1. 1976
2. 1969
3. 1979
4. 1991

121. The official motto 'United in Diversity' is associated with which international organization

1. ASEAN
2. BRICS
3. The European Union
4. GCC

122. The 2020 'Goodwill Ambassador to Poor' for UN Association for Development and Peace (UNADAP) is

1. Greta Thunberg (Sweden)
2. M Nethra (India)
3. Samaira Mehta (USA)
4. Jakomba Jabbie (The Gambia)

123. The 2020 killing of 46-year old George Floyd in Minneapolis sparked a series of popular protests in the United States under the banner of

1. 'Humanity above race' movement
2. 'Black lives matter' movement
3. 'End violent policing' movement
4. 'End police brutality' movement

124. The suite of agreements to normalize diplomatic relations between the UAE and Israel, and the Kingdom of Bahrain and Israel, including the United States, signed on 15 September 2020 in Washington are known as

1. The Abraham Accords
2. The Washington Consensus
3. The Gulf Accords
4. The Trump Accords

125. The Nagorno-Karabakh conflict that intensified in September 2020 is related to cease-fire violations between

1. India and China
2. Kyrgyzstan and Tajikistan
3. Armenia and Azerbaijan
4. Syria and Lebanon

126. China's major political and economic outreach to the world under current President Xi Jinping is called

1. Belt and Road Initiative (BRI)
2. Silk Road dream
3. Great Wall initiative
4. Trans Pacific Partnership (TPP)

Section 6: Ecology and Environment

127. Which one of the following is not one of the four pillars of human development?

1. Sustainability
2. Maturity
3. Empowerment
4. Productivity

128. Match the name of the biosphere reserve with the state in which it is located:

- (p) Nokreg (i) Kerala
(q) Sunderbans (ii) West Bengal
(s) Nanda Devi (iv) Meghalaya
(r) Agasthiar Hill (iii) Uttarakhand

1. (p)=(i),
(q)=(iv),
(r)=(ii),
(s)=(iii)
2. (p)=(i),
(q)=(ii),
(r)=(iii),
(s)=(iv)

3. (p)=(iii),

(q)=(iv),

(r)=(ii),

(s)=(i)

4. (p)=(iv),

(q)=(ii),

(r)=(i),

(s)=(iii)

129. According to the Indian Council for Agricultural Research (ICAR), the four major types of soil order are listed below. Identify the correct sequence in order of decreasing percentage of distribution across India:

1. Alfisols, 2. Entisols, 3. Inceptisols, and 4. Vertisols

1. (3)-(2)-(1)-(4)

2. (4)-(2)-(1)-(3)

3. (1)-(2)-(3)-(4)

4. (4)-(3)-(2)-(1)

130. Which of the following is caused due to iron deficiency?

1. Night blindness

2. Marasmus

3. Goitre

4. Anaemia

131. For an ecosystem, the diversity between communities is called as

1. Landscape diversity

2. Alpha diversity

3. Beta diversity

4. Gamma diversity

132. In an aquatic ecosystem, Biological Oxygen Demand (BOD) is a measure of oxygen (O₂) required by aerobic decomposers in water. A higher BOD in a system indicates

1. High Dissolved Oxygen

2. Equal amount of Dissolved Oxygen

3. Low Dissolved Oxygen

4. High production of Oxygen (O₂)

133. The Mojave desert in Southern California is an example of
1. Temperate desert
 2. Tropical desert
 3. Total desert
 4. Cold desert
134. Based on the time taken for degradation (from high to low), choose the correct option
1. Polythene bag - Leather shoe - Aluminium can - Wooden chair
 2. Polythene bag - Wooden chair - Leather shoe - Aluminium can
 3. Polythene bag - Aluminium can - Leather shoe - Wooden chair
 4. Polythene bag - Aluminium can - Wooden chair - Leather shoe
135. With '+' sign representing beneficial interaction and '-' sign indicating detrimental interaction, in a population interaction for species A and B, '+' and '+' interaction is
1. Predation
 2. Competition
 3. Parasitism
 4. Mutualism
136. Which one of the following is caused by deforestation?
1. Increased soil erosion
 2. Decreased soil fertility
 3. Regional and global climate change
 4. All of the above
137. The Cauvery river water dispute is mainly between the following states
1. Kerala and Tamil Nadu
 2. Karnataka and Tamil Nadu
 3. Karnataka and Kerala
 4. Tamil Nadu and Andhra Pradesh
138. Which one of the following has the richest biodiversity?
1. Temperate rainforest
 2. Tropical scrub forest
 3. Tropical rain forest
 4. Tropical deciduous forest

139. In the terrestrial ecosystem, according to the pyramid of biomass, the maximum biomass occurs in
1. Consumers
 2. Producers
 3. Herbivores
 4. Carnivores
140. Which one of the following is not non-renewable energy source
1. Solar Energy
 2. Wind Energy
 3. Nuclear Energy
 4. Geothermal Energy
141. Which one of the following gas is a major component of the Biogas
1. Hydrogen Sulphide
 2. Hydrogen
 3. Ethane
 4. Methane
142. Which of the following could lead to the desertification
1. Deforestation
 2. Over grazing
 3. Surface Mining
 4. All of the above
143. Which one of the following cropping pattern is good for soil conservation
1. Rotational cropping (crop rotation)
 2. Mono cropping
 3. Mixed Cropping
 4. All of the above
144. It is because of the presence of atmosphere around the Earth the life is possible. Without the atmosphere Earth would be
1. Too cold
 2. Too Windy
 3. Too Hot
 4. Too wet