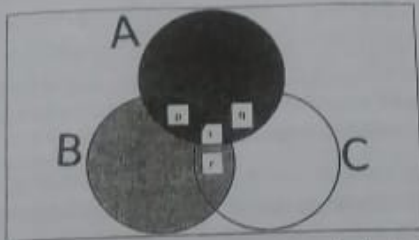


**GENERAL PAPER**
Paper – I

Answer Questions from 1 to 5 based on the following data and with the help of the given figure.



A = 30, represents total number of students in class studying Physics.

B = ?, represents total number of students studying Chemistry.

C = 40, represents total number of students studying Mathematics.

12 Students are studying Physics and Chemistry but not Mathematics.

16 Students are studying Chemistry and Mathematics but not Physics.

4 Students are studying Physics, Chemistry and Mathematics.

1. If no student is studying Chemistry alone, what is the total number of students studying Chemistry ?
(A) 30 (B) 28
(C) 32 (D) 34
2. If students studying Physics and Mathematics, Physics, Chemistry and Mathematics are 14 in number, then what is the value of q ?
(A) 6 (B) 5
(C) 10 (D) 4

3. What is the total number of students in the class ?
(A) 52 (B) 60
(C) 56 (D) 63
4. What is the percentage of students studying Physics ?
(A) 53% (B) 56%
(C) 60% (D) 40%
5. What is the ratio of number of students studying only Physics to the number of students studying only Mathematics ?
(A) 0.3 (B) 0.4
(C) 0.5 (D) 0.6

Read the following passage carefully and answer the questions 6-10 :

DECOLONIZING THE NORTH

The white man's burden is becoming increasingly heavy for the earth and especially for the South. The past 500 years of history reveal that each time a relationship of colonization has been established between the North and nature and people outside the North, the colonizing men and society have assumed a position of superiority, and thus of responsibility for the future of the earth and for other peoples and cultures. Out of the assumption of superiority flows the notion of the white man's burden. Out of the idea of the white man's burden flows the reality of the burdens imposed by the white man on nature, women and others. Therefore, decolonizing the South is intimately linked to the issue of decolonizing the North.



Gandhi clearly formulated the individuality of freedom not only in the sense that the oppressed of the world are one, but also in the wider sense that the oppressor too, is caught in the culture of oppression. Decolonization in the North is also essential because processes of wealth creation simultaneously create poverty, processes of knowledge creation simultaneously generate ignorance, and processes for the creation of freedom simultaneously generate unfreedom.

In the early phases of colonization, the white man's burden consisted of the need to 'civilize' the non-white peoples of the world — this meant, above all, depriving them of their resources and rights. In the later phase of colonization, the white man's burden consisted of the need to 'develop' the third world, and this again involved depriving local communities of their resources and rights. We are now on the threshold of the third phase of colonization, in which the white man's burden is to protect the environment, especially the third world's environment — and this, too, involves taking control of rights and resources. [. . .]

Ethical decolonization :

From the democracy of all life to man's empire over nature, most non-western cultures have been based on the democracy of all life. As a schoolgirl, one lesson I learnt in the Hindi class was that human beings are part of Vasudhaiva Kutumbakam or the earth family. As a part of the earth family, one participates in the democracy of all life. Rabindranath Tagore, our national poet, wrote that the peak of Indian culture consists in its having defined the principles of life in nature as the highest form of cultural evolution.

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The culture of the forest has fuelled the culture of Indian society. The culture that has arisen from the forest has been influenced by the diverse processes of renewal of life which are always at play in the forest, varying from species to species, from season to season, in sight and sound and smell. The unifying principle of life in diversity, of democratic pluralism, thus became the principle of Indian civilization.

As a source of life, nature was venerated as sacred, and human evolution was measured in terms of the human capacity to interact in harmony with her rhythms and patterns, intellectually and emotionally. In the final analyses, the ecological crisis is rooted in the mistaken belief that human beings are not part of the democracy of nature's life, that they stand apart from and above nature.

6. White man's burden is based on
- (A) Real progress made by Europe
 - (B) Superior technology
 - (C) False notion of superiority
 - (D) Democratic nature of European Societies
7. In the passage North refers to
- (A) all countries above the equator
 - (B) only Scandinavian countries
 - (C) imperialist European countries
 - (D) highly civilized countries

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8. The author argues that the attempt by the West to protect the third World's environment is
- (A) the need of the day
 - (B) a historical compulsion
 - (C) harmful to the third world
 - (D) an ethical duty
9. What is the author's view is essential to Indian civilization ?
- (A) Religious attitude
 - (B) Compassion for others
 - (C) Democratic pluralism
 - (D) Hedonism
10. Decolonising the South
- (A) Requires the resources of the North
 - (B) Requires the decolonisation of the North
 - (C) Total separation between North and South
 - (D) Western Technology
11. 'Kyoto protocol' is related to
- (A) Ozone depletion
 - (B) Hazardous waste
 - (C) Climate change
 - (D) Nuclear energy
12. The first 'Virtual University' of India came up in
- (A) Kerala
 - (B) Andhra Pradesh
 - (C) Karnataka
 - (D) Tamil Nadu

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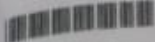
13. Who inaugurated the 103rd Indian Science Congress at Mysore ?
- (A) Pranab Mukharjee
 - (B) Hamid Ansari
 - (C) Narendra Modi
 - (D) Mrs. Smriti Irani
14. Physical path along which data transmission occurs
- (A) Encoder (B) Decoder
 - (C) Channel (D) Bandwidth
15. MIPS stands for
- (A) Million Instruction Per Second
 - (B) Mega Instruction Per Second
 - (C) Million Interchange Performance Standard
 - (D) Megabyte Instruction Performance Standard
16. A set of standards to handle voice and computer data in telephone networks, providing additional telephone capabilities without scrapping existing copper telephone lines is called
- (A) Internet Service Provider
 - (B) Internet Protocol Network
 - (C) Integrated Service Provider
 - (D) Integrated Service Digital Network

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17. Flyash means

- (A) Ash that is generated in industries
- (B) Dust produced by cement industries
- (C) Produced by thermal power plants
- (D) The smoke that is generated when plastic is burnt

18. 'Care and share' policy of the forest applies to

- (A) Tribal people
- (B) Forest communities
- (C) Villagers
- (D) JFMCs

19. This ecosystem constitutes a systematic link between terrestrial and marine ecosystems

- (A) Mango forests
- (B) Mangrove forests
- (C) Evergreen forests
- (D) Rain forests

20. Which is a nodal agency for granting equivalence to degrees awarded by foreign universities ?

- (A) UGC
- (B) Niti Aayog
- (C) ICSSR
- (D) AIU

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21. Vidyalakshmi is a web portal launched by the government for the benefit of students seeking

- (A) Higher education
- (B) Teacher education
- (C) Educational loans
- (D) Scholarships

22. Which of the following University has adopted the meta University concept ?

- (A) Assam University
- (B) Pondicherry University
- (C) Delhi University
- (D) Hyderabad University

23. A combination of hardware and software which links two parts of the same LAN or two compatible LANs by directing messages to the correct node is called

- (A) Embedded System
- (B) Router
- (C) Hybrid Computer
- (D) Microprocessor

24. _____ is a process of searching bugs in a software.

- (A) Compiling
- (B) Testing
- (C) Execution
- (D) Debugging



25. Project Tiger was launched in the year

- (A) 1983
- (B) 1993
- (C) 1973
- (D) 2000

26. The first ever FM services were started in India on

- (A) July 23, 1977
- (B) July 23, 1997
- (C) July 23, 2007
- (D) July 23, 1987

27. ESD, NSD, DD, DCD has one thing in common. What is it ?

- (A) Viewership
- (B) Ownership
- (C) Readership
- (D) Leadership

28. Which is the agency of the Central Government that disseminates information regarding government policies and projects to the media in India ?

- (A) PIB
- (B) PTI
- (C) AIR
- (D) PCI

29. 'Employment News' is published by the publisher of

- (A) Times of India
- (B) The Week
- (C) The Hindu
- (D) Yojana

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30. What is AIDA Marketing Communication stands for ?

- (A) Attraction – Information – Development – Application
- (B) Attention – Information – Dialogue – Action
- (C) Attention – Interest – Desire – Action
- (D) Attitude – Inspiration – Desire – Action

31. The question below is followed by two arguments (i) and (ii). Decide which of the arguments is "strong" and which is "weak". Choose the correct answer from the given below.

Statement : India should make voting in elections compulsory for every eligible citizen.

Arguments :

- i. Yes, because India spends a lot on elections, which is very important in the Indian context and everyone should vote to make India a true Democracy.
- ii. No, because the moment you make things compulsory it is not a truly democratic way of getting things done.

- (A) Only the argument (i) is strong
- (B) Only the argument (ii) is strong
- (C) Neither argument (i) nor argument (ii) is strong
- (D) Both the arguments are strong

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32. In the following question a statement is followed by two assumptions (i) and (ii). An assumption is something supposed or taken for granted. Consider the statement and the following assumptions and decide which of the following assumptions is implicit in the statement ?

Statement : If it does not rain throughout this season, most farmers would be in trouble this year.

Assumptions :

- i. Most farmers are generally dependent on rains.
- ii. Timely rainfall is essential for farming.

- (A) Only assumption (i) is implicit
(B) Only assumption (ii) is implicit
(C) Neither assumption (i) nor (ii) is implicit
(D) Both the assumptions are implicit

33. Consider the following statements.
1. All contemporaries are ancestors.
2. Few ancestors are heirs.
3. No contemporary is an heir.

Which of the following inference can be drawn from the above statements ?

- (A) Some contemporaries are heirs
(B) Some heirs are ancestors
(C) No ancestor is a contemporary
(D) No heir is an ancestor

34. Choose the pair of words which shows the same relationship as given at the top.
Biography : Autobiography :: ?

- (A) Memories : History
(B) Author : Performer
(C) Mobile : Automobile
(D) Testimony : Confession

35. Among the four terms marked A-D, three terms are similar and one is dissimilar. Find the one that is not similar.

- (A) Shehnai (B) Flute
(C) Trumpet (D) Violin

36. A, B and C together can complete a piece of work in 10 days. All the three started working at it together and after 4 days 'A' left. Then B and C together completed the work in 10 more days. 'A' alone can complete the work in

- (A) 15 days (B) 16 days
(C) 25 days (D) 26 days

37. Complete the series :

132, 182, 306, 380, 552, 870, ____

- (A) 930 (B) 992
(C) 1010 (D) 1142

38. If PURCHASE is coded as PRHSEACU, then how SUITABLE will be coded ?

- (A) SIAELBTU (B) SIALBETU
(C) SIABELTU (D) SIALEBTU

39. The price of 7 apples is equal to the cost of 3 melons. The price of 2 melons is equal to the cost of an apple and five oranges. If you had just enough money to buy 30 oranges, then how many apples you would buy with the same amount ?

- (A) 22 (B) 25
(C) 30 (D) 32

40. 'A' walks around a circular field at the rate of one round per hour, while 'B' runs around it at the rate of six rounds per hour. They start in the same direction from the same point at 7.30 A.M. They shall first cross each other at

- (A) 8.30 A.M. (B) 8.10 A.M.
(C) 7.48 A.M. (D) 7.42 A.M.



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41. A research hypothesis is a
(A) Theory
(B) Principle
(C) Tentative proposition
(D) Postulate
42. What is Encyclopaedia edited content called as ?
(A) Primary Source
(B) Infinite Source
(C) Continuous Source
(D) Secondary Source
43. Which is the process not needed in experimental research ?
(A) Manipulation and Replication
(B) Controlling
(C) Observation
(D) Absence of treatment group
44. When two or more successive footnotes refer to the same work, which one of the following is used ?
(A) ibid (B) et.al
(C) op.cit (D) loc.cit
45. What is the research that aims at immediate application ?
(A) Action Research
(B) Empirical Research
(C) Conceptual Research
(D) Fundamental Research
46. Which one of the following is the most effective mode of learning in the present days ?
(A) self-study
(B) blended learning
(C) face to face learning
(D) e-learning
47. Which one of the following is the aim of Value Education ?
(A) to inculcate moral values
(B) to inculcate social values
(C) to inculcate political values
(D) to inculcate economic values
48. Lecture method is least effective in the learning of the following
(A) Aptitudes (B) Attitudes
(C) Relationships (D) Skill
49. Which of the following techniques used by a teacher to teach include ?
1. Lecture
2. Interactive lecture
3. Group work
4. Self-study
Codes :
(A) 1, 2, 3 and 4 (B) 1, 2, 3 only
(C) 1 and 2 only (D) 1, 3 and 4
50. Which of the following is not a teaching method ?
(A) Buzz group (B) Brain storming
(C) Gossip (D) Role plays