

Biology

Time : 2½ Hours]

PARTS - A & B

[Max. Marks :]

Instructions :

1. Answer the questions under **Part - A** on a separate answer book.
2. Write the answers to the questions under **Part - B** on the question paper itself and attach it to the answer book of **Part - A**.

Time : 2 Hours]

PART - A

[Marks :]

SECTION - I (Marks : 4 × 1 = 4)

- Note :
- 1) Answer **ANY FOUR** questions from the following.
 - 2) Each question carries **ONE** mark.

1. Which life process is important in releasing energy ?
2. Mention two animals in which blood is white in colour.
3. What is the important role of Progesterone ?
4. What is Ovulation in Human beings ?
5. What is mal-nutrition ?
6. What is the chemical name of Niacin ? Why it is required for the body ?

SECTION - II (Marks : 5 × 2 = 10)

- Note :
- 1) Answer **ANY FIVE** questions, choosing atleast **TWO** from each **GROUP 'A & B'**.
 - 2) Each question carries **TWO (2)** marks.

Group - A

7. Define Photosynthesis.
8. What are the differences between a Dendrite and Axon ?
9. Explain how can you withdraw your hand immediately and suddenly, when it touches a hot object.
10. What is "Heart attack"?

Group - B

11. Write two advantages of vegetative propagation.
12. How does Calcium help our body ?
13. What are the steps to be taken to control malaria ?
14. Write briefly about the Spermatozoa of Frog.

SECTION - III (Marks : 4 × 4 = 16)

- Note :
- 1) Answer **ANY FOUR** questions, choosing atleast **TWO** from each **GROUP 'A & B'**.
 - 2) Each question carries **FOUR (4)** marks.

Group - A

15. Describe the structure of Cerebrum.

II. Fill in the blanks with suitable words :

11. regulate the exchange of gases and the loss of water vapour from the leaves.
12. Respiration in the absence of Oxygen by micro-organisms is known as
13. The pumping device in the blood transport system is
14. Blood is called tissue of the body.
15. propagation is preferred for the ornamental and horticultural plants.

16. Brain in man is present in a bony case called
17. Glucagon is secreted when the level of in blood is low.
18. The first cells formed after fusion of male gamete with egg is called
19. Nutrition is the procurement of a required for the body.
20. The vitamin that prevents sterility in males is vitamin

III. Match the following :

i)	Group 'A'		Group 'B'	(5 × ½ = 2½)
21.	Citric acid cycle	()	(A)	Photophosphorylation
22.	Carbon fixation	()	(B)	Sir Hans Krebs
23.	Blood groups	()	(C)	Leaf
24.	Food factory	()	(D)	Karl Landsteiner
25.	Light screen	()	(E)	Melvin Calvin
			(F)	Importance of light in Photosynthesis
			(G)	ATP
ii)	Group 'A'		Group 'B'	(5 × ½ = 2½)
26.	Acrosome	()	(A)	Semen
27.	Egg	()	(B)	Amplexory pads
28.	Clitellium	()	(C)	Primary Oocyte
29.	Frog	()	(D)	Fertilization
30.	Progesterone	()	(E)	Implantation
			(F)	Urethra

PART - B : ANSWERS

- I.** 1) C 2) B 3) B 4) C 5) B 6) C 7) A 8) B 9) B 10) D
- II.** 11) Stomata 12) Anaerobic respiration 13) Heart 14) Fluid
 15) Vegetative 16) Cranium 17) Glucose
 18) Zygote 19) Nutrients 20) E/Tocopherol/Antisterility Vitamin
- III.** i) 21) B 22) E 23) D 24) C 25) F ii) 26) D 27) C 28) F 29) B 30) E

English Paper - I

Time : 2½ Hours]

[Max. Marks : 50

(1-8) Answer each of the following questions in about THREE sentences.

8 × 2 = 16

1. What was the reason for the strange behaviour of Mr. Schwamm's son ?
(The Night at the Hotel)
2. What had happened to Anna's baby ?
(Circus Cat, Alley Cat)
3. What was the fate of the weasel, the crow and the magpie ?
(The Gallows)
4. How does Mother Teresa describe the day she received "a special call from Jesus Christ" ?
(Mother Teresa)
5. How did John Byro, the owner of the horse, react when he saw Mourad and Aram with the horse ?
(The Beautiful White Horse)
6. Why was the Chital hind so cruel to her baby ? What did she do ?
(Fire in the Forest)
7. What does the poet do to the snake ? How does he feel after it ?
(Snake)
8. What are the factors that contribute to wisdom, according to Russell ?
(Knowledge and Wisdom)

(9-24) : Write the answers to these questions in your answer book.

(9-13) Choose the correct meanings of the words on the left and write them in your answer book.

5 × ½ = 2½

- | | | | | | |
|-------------------------|---|-------------|---------------|---------------|------------|
| 9. <i>assuage</i> | : | persuade | soothe | press | resist |
| 10. <i>tranquil</i> | : | harmful | sleepy | confused | peaceful |
| 11. <i>appalling</i> | : | shocking | striking | leading | appealing |
| 12. <i>grope</i> | : | ask for | complain | feel about | wipe |
| 13. <i>deliberately</i> | : | unknowingly | intentionally | instinctively | inherently |

(14-18) Note the meaning of each underlined word in the sentence in which it occurs. Select the option that conveys the meaning and write it in your answer book.

5 × ½ = 2½

14. The new office is sparsely furnished.
(a) well (b) barely (c) not at all
15. He is the most despised person in our office.
(a) punctual (b) popular (c) hated
16. She has a strong alibi.
(a) excuse (b) argument (c) witness
17. The fans were ying with each other to get a glimpse of their favourite star.
(a) running after (b) fighting (c) competing with
18. Your friend is very verbose.
(a) talkative (b) active (c) proud

(19-24) Choose the alternative that best fits the blank in each sentence and write it in your answer book.

6 × ½ = 3

19. It is impossible to wild animals. (confiscate, rusticate, domesticate)

20. If the infection spreads, the leg will have to be (*computed, amputated, amplified*)
 21. One who has will never compromise on his or her principles. (*integrity, serenity, humility*)
 22. They his arguments. (*distorted, disobeyed, defeated*)
 23. His feet were unsteady. He was (*stalking, scurrying, staggering*)
 24. Only the members of society are given admission to that club. (*elated, belated, elite*)

(25-28) Find the wrongly - spelt word in each of the following sets and write it correctly in your answer book. $4 \times \frac{1}{4} =$

- | | | | | |
|-----|--------|----------|----------|--------|
| 25. | plead | cream | treet | fleet |
| 26. | repell | recall | install | refill |
| 27. | orator | governer | prisoner | author |
| 28. | defer | confer | suffer | prefer |

(29-36) Write out in your answer book the words of your choice against the question number

(29-32) In each set, find the word in which the underlined part is pronounced in the same way as in the key word. $4 \times \frac{1}{4} =$

- | | | | | | |
|-----|--------|--------|--------|--------|-------|
| 29. | wanted | robbed | lifted | roared | loved |
| 30. | feast | bear | seer | yield | fear |
| 31. | gem | zoo | guest | gum | jar |
| 32. | roads | bug | rabies | race | rats |

(33-36) Find the word in each set that rhymes with the key word. $4 \times \frac{1}{4} =$

- | | | | | | |
|-----|-------|-------|------|---------|-------|
| 33. | climb | camp | tame | time | crumb |
| 34. | loan | town | lawn | terr | phone |
| 35. | leave | dive | have | believe | give |
| 36. | cage | catch | wage | ledge | maze |

37. Read the following passage in which the end of each sentence is not indicated. Decide where each sentence ends. Write out in your answer book, the last words of each sentence followed by appropriate punctuation marks (.) or (?) or (!). $4 \times \frac{1}{2} =$

Are you crazy we will be late please walk fast we should not make a fool of ourselves

38. Use commas, full stops, exclamation/question/quotation marks wherever necessary and rewrite the sentences in your answer book. $3 \times \frac{1}{2} = 1$

The boy asked his mother can I come with you no way said the mother

(39-43) Read sentence (a). Then complete sentence (b) using the ideas in (a). Keep sentence (b) as close in meaning as possible to sentence (a). Write it in your answer book. $5 \times 1 =$

39. (a) The chief guest is distributing the prizes.
 (b) The prizes
40. (a) It is likely that John will be awarded the first prize.
 (b) John is
41. (a) We were unlucky to have lost the match.
 (b) Unluckily,
42. (a) No student was as tall as Mrinal.
 (b) Mrinal
43. (a) "Will we meet tomorrow?" she asked.
 (b) She wondered.....

44. Identify the parts of speech of each underlined word. Write down the words and their parts of speech in your answer book. $4 \times \frac{1}{2} = 2$

The teacher deliberately asked me an easy question, but I could not give the correct answer.

45. Rewrite the following after making necessary corrections. $1 \times 1 = 1$

Rafeeqa is knowing many languages.

46. Rewrite the following passage, making any improvements that you think are necessary. $1 \times 2 = 2$

I took a bus. I went there. It was very far. It took a long time. We reached late. Everyone had left. I couldn't meet anyone. I took a bus. I came back. I reached back around midnight.

- (47-51) Read the following passage and answer the questions given below it. $5 \times 1 = 5$

The origin of the mirror, the most widely used object in all homes, rich or poor, is lost in antiquity. The earliest mirrors date back to 2000 years. They belonged to Etruscans, Greeks and Romans and consisted of a thin convex disc of a metal, mostly bronze, which was polished on one side. Mirrors were made from glass and coated with tin or silver. It has been mentioned by Pliny that these were made at Sidon.

Greek mirrors dating back to 400 BC have been unearthed in Corinth with wooden frames and handles carved with the figure of the Greek goddess of Love - Aphrodite.

The mirror, as we know it today, was a luxury item in many parts of Europe. This was because there were only a handful of artisans in Venice who knew the secret of making it.

A German scientist named Justus Van Leibig invented the chemical process of coating a glass surface with metallic silver, now called silvering.

Mirrors are now extensively employed in astronomy. Astronomical telescopes are reflectors using concave mirrors.

47. How were the earliest mirrors made?

48. What figures were carved on the Greek mirrors?

49. Why was the mirror considered a luxury item in many parts of Europe?

50. What was the chemical process invented by Justus Van Leibig?

51. How are mirrors used in astronomy?

52. Read the following passage.

It is worth looking at one or two aspects of the way a mother behaves towards her baby. The usual fondling, cuddling and cleaning require little comment, but the position in which she holds the baby against her body when resting is rather revealing. Careful American studies have disclosed the fact that 80 per cent of mothers cradle their infants in their left arms, holding them against the left side of their bodies. If asked to explain the significance of this preference, most people reply that it is obviously the result of the predominance of right-handedness in the population. By holding the babies in their left arms, the mothers keep their dominant arm free for manipulations. But a detailed analysis shows that this is not the case. True, there is a slight difference between right-handed and left-handed females, but not enough to provide an adequate explanation. It emerges that 83 percent of right-handed mothers hold the baby on the left side, but then so do 78 percent of left-handed mothers. In other words, only 22 percent of the left-handed mothers have their dominant hands free for actions. Clearly there must be some other, less obvious explanation.

The only other clue comes from the fact that the heart is on the left side of the mother's body. Could it be that the sound of her heartbeat is the vital factor? And in what way? Thinking along these lines it was argued that perhaps during its existence inside the body of the mother, the growing embryo becomes used to the sound of the heartbeat. If this is so, then the re-

discovery of this familiar sound after birth might have a calming effect on the infant, especially as it has just been thrust into a strange and frighteningly new world outside.

Now read the following statements and find SIX of them which are in agreement with the passage. Write only the letters of the TRUE statements.

$$6 \times \frac{1}{2} = 3$$

- (a) Most American mothers don't fondle or cuddle their babies.
- (b) 80 percent of mothers cradle their infants in their left arms.
- (c) Right-handed mothers cradle their infants in their right arms.
- (d) Mothers cradle their infants in their left hands in order to get enough exercise for their left hand.
- (e) 78 percent of left-handed mothers hold their babies on the left side.
- (f) Most people think that they hold the babies on the left so that their right arm will be free.
- (g) American doctors advise the mothers to hold the babies on the left side.
- (h) Mothers hold their babies on the left side because the heart is on the left side.
- (i) The infant gets soothed when it listens to the heartbeat of the mother.
- (j) Mothers don't realize why they are holding their babies on the left side.

(53-55) Read the following passage :

Our present system of punctuation came from two classical languages - Greek and Latin.

In olden times, a question was indicated by writing the Latin word 'questio' at the end of every sentence. Since most books were handwritten, the task became time-consuming. So 'questio' was shortened to QO. Soon scribes began placing the Q above the O to distinguish it from other abbreviations. Eventually Q became a wiggly squiggle and the O a dot.

By the 9th century, the question mark resembled the modern one, but tilted slightly to the right. Then printing was invented and a standard set of punctuation marks was devised and the first book on the principles of punctuation was published by Aldo Manuzio in 1566.

Now complete the following statements. In each case, write down the number of the statement and your choice in your answer book.

$$3 \times \frac{1}{2} = 1 \frac{1}{2}$$

- 53. In olden days, a question was indicated by writing
 - (a) the question mark at the beginning of a sentence.
 - (b) the Latin word 'questio' at the end of a sentence.
 - (c) 'Latin' or 'Greek' at the end of a sentence.
- 54. "Q" was placed above "O" to
 - (a) save time.
 - (b) save space.
 - (c) distinguish it from other abbreviations.
- 55. In 1566, Aldo Manuzio
 - (a) published the first book on punctuation.
 - (b) invented printing.
 - (c) invented the question mark.



English Paper - II

Time : 2½ Hours]

[Max. Marks : 50

SECTION - I

(1-5) Read the passage given below. Then answer the questions that follow it. Write the answers in your answer-book. 5 × 1 = 5

"Give me a telegraph form", said Holmes. He wrote down : "Is all ready for Sir Henry?" and addressed the telegram to Mr. Barrymore, Baskerville Hall. Then he addressed a second telegram to the postmaster of Grimpen : "Telegram to Mr. Barrymore, to be delivered into his own hand. If absent, please return wire to Sir Henry Baskerville, Northumberland Hotel".

(Arthur Conan Doyle : *The Hound of Baskervilles*)

1. Who is Holmes asking for a telegraph form ?
2. Why did he send a telegram to Mr. Barrymore ?
3. Who is Mr. Barrymore ?
4. Why was the second telegram sent to the postmaster of Grimpen ?
5. Who is Sir Henry ?

(6-10) Read the passage given below. Then answer the questions that follow it. Write the answers in your answer-book. 5 × 1 = 5

This faith can give us courage to face the uncertainties of the future. It will give our tired feet new strength as we continue our forward stride toward the city of freedom. When our days become dreary with low hovering clouds and our nights become darker than a thousand midnights, we will know that we are living the creative turmoil of a genuine civilisation struggling to be born.

(Martin Luther King Jr. : *The Beauty of Brotherhood*)

6. Who is talking in this paragraph ?
7. Which faith is he talking of ?
8. Whose tired feet is he talking of ?
9. Which freedom is he talking of ?
10. Which 'genuine civilisation' is he talking of ?

SECTION - II

(11-19) Answer FIVE questions, choosing atleast TWO from each set.

5 × 2 = 10

SET - A

11. What explanation does Stapleton give Watson for having settled in a 'gloomy' place like Devonshire?
12. When Dr. Watson follows Barrymore in the middle of the night, what does he find him doing ?
13. Why does not Sir Henry want Dr. Watson to accompany him when he goes for a walk on the moor?

14. What is the relationship between Barrymore and Selden ?
15. What information does Dr. Watson get from Laura Lyons ?

SET - B

16. Why is the story entitled Charles and not Laurie ? (Charles)
17. How many types of talking does Desmond Morris distinguish ? (Grooming)
18. Why didn't the writer feel free with the people of the village ? (The Villagers' Curiosity)
19. Of all the patients waiting, who tried to behave like the bravest ? Was she /he really brave ?
(The First Patient)

SECTION - III

- (20, 21) Rearrange the scrambled sentences in each set (A & B) to form meaningful paragraphs. Do not copy the actual sentences in your answer-book. Write only the letters corresponding to the sentences in the proper order. $2 \times 2\frac{1}{2} = 5$

SET - A

- 20.
- (a) Home Minister said that family of each dead person will be given rupees one lakh as compensation.
 - (b) Nearly 100 bodies were retrieved from the bogies.
 - (c) Seven bogies and the engine of the train fell into the river.
 - (d) State's worst disaster took place on Sunday when a fast passenger train to Secunderabad fell into a river.
 - (e) Helplines were set up at Valigonda and Secunderabad to provide information regarding the victims.

SET - B

- 21.
- (a) The official toll was pegged at 20.
 - (b) Hyderabad collector Arvind Kumar said that families living downstream of the lake will be evacuated.
 - (c) Heavy rains continued to play havoc in several parts of the state on Saturday.
 - (d) Residents of localities downstream of Hussain Sagar which reached its full tank on Saturday were put on alert.
 - (e) The toll in rain related incidents in the last two days rose to 41.

22. Read the following advertisement which appeared in a newspaper.

Join Leading Call Centres

Looking for undergraduates / graduates / freshers / to work in
24/7 environment.

You need to have excellent English communication skills.

Positions open for Hyderabad, Pune, Kolkata, Mumbai.

Walk in with your resume on 28th and 29th Oct. 2005.

between 10 am - 6 pm at the following venue :

2 Coms, 302, Lovely Mansion,

Rajbhavan Road; Somajiguda,

Hyderabad - 82

or write to 2 coms @ rediffmail. com

Pick & drop facility / Attractive salary / Growth prospects.

Write a letter to the address above applying for the job. State your qualifications and any other details that you consider necessary.

23. Read the following dialogue. Then write a paragraph expressing your views on the topic discussed in the dialogue. 5

Reena : Today I read an article about becoming a vegetarian.

Lalitha : Yes, even I saw that article. It says that human beings are designed to digest only vegetables and not anything else.

Reena : Did they say anything about eggs ?

Lalitha : No, I believe eggs are also considered vegetarian. I don't know whether it is true or not.

- (24, 25) Read the newspaper report given below :

Rs. 32,900 Stolen from Bus Passengers

Bangalore, 30 Oct : Pickpockets posing as passengers in an RTC bus at Mehdiapatnam made away with Rs. 32,900 from different women who were shopping for Id. The suspects flicked Rs. 30,000 from Riva Begum's bag in an RTC bus near Lal Bagh. Riva Begum was talking to a co-passenger when the incident took place. Police is now looking for probable suspects.

24. Imagine that you were one of the passengers in the bus when this incident took place. Write a letter to your friend in Hyderabad describing the incident and how you felt about it. 10

25. Write a letter to the editor of the newspaper in which the report appeared. Give your views about lack of safety for passengers in buses and other public transport systems. 5



Maths Paper - I

Time : 2½ Hours]

PARTS - A & B

[Max. Marks : 50

Instructions :

1. Answer the questions under Part 'A' on a separate answer book.
2. Write the answers to the questions under Part 'B' on the question paper itself and attach it to the answer book of Part (A).

Time : 2 Hours]

PART - A

[Marks : 35

SECTION - I (Marks : 5 × 2 = 10)

- Note :**
1. Answer ANY FIVE questions choosing at least TWO from each of the following groups, i.e., Groups A & B.
 2. Each question carries 2 marks.

Group - 'A'

(Statements and Sets, Functions, Polynomials)

1. Write the converse, inverse and contrapositive of the following statement :
"If in a triangle ABC, $AB > AC$, then $\angle C > \angle B$ ".
2. Let $A = \{\text{all primes less than } 20\}$; $B = \{\text{all whole numbers less than } 10\}$. Find i) $A \cap B$ ii) $A \cup B$.
3. Let a function $f : \mathbb{R} \rightarrow \mathbb{R}$ be defined by $f(x) = 3x + 2$. Show that it is One-One function.
4. Find the roots of $x^2 + x(c - b) + (c - a)(a - b) = 0$.

Group - 'B'

(Linear Programming, Real Numbers and Progressions)

5. Shade the region represented by the inequation $4x + 3y \geq 12$.
6. If $a = x + \sqrt{x^2 + 1}$, then show that $x = \frac{1}{2} (a - a^{-1})$.
7. Evaluate $\lim_{x \rightarrow m} \frac{x^p - m^p}{x^q - m^q}$.
8. Prove that the first two terms are equal to '0' and the rest are positive integers in a series, if $t_n = (n - 1)(n - 2)$.

SECTION - II (Marks : 4 × 1 = 4)

- Note :**
1. Answer ANY FOUR of the following SIX questions.
 2. Each question carries 1 mark.

9. Write the disjunction of the following statements : 5 is an odd number; 5 is positive.

10. Let $f : \mathbb{R} - \{1\} \rightarrow \mathbb{R}$ be defined by $f(x) = \frac{x+1}{x-1}$, where $x \neq 1$. Find the value of $f\left(\frac{1}{3}\right)$.

11. Find the value of K so that $x^3 - 3x^2 + 4x + K$ is exactly divisible by $x - 2$.
12. At which of the points a) (3, 0), b) (5, 0), c) (0, 8), d) (0, 4) the function $f = x + 4y$ is maximum?
13. Solve : $|2x - 5| = 7$.
14. $5, \frac{20}{7}, \frac{80}{49}, \dots$, find the sum to infinity of the G.P.

SECTION - III (Marks : $4 \times 4 = 16$)

- Note :**
1. Answer any **FOUR (4)** questions choosing **at least TWO (2)** from each of the following groups, i.e., **Groups A and B**.
 2. Each question carries **4** marks.

Group - 'A'

(Statements and Sets, Functions, Polynomials)

15. Show that $A - (B \cup C) = (A - B) \cap (A - C)$, where A, B, C are sub-sets of a Universal set μ .
16. Let f, g, h be functions defined by $f(x) = x$, $g(x) = 1 - x$ and $h(x) = x + 1$.
Find i) (hog) of and ii) $ho(gof)$.
17. Let f be given by $f(x) = x + 2$ and f has the domain $\{x : 2 \leq x \leq 5\}$. Find f^{-1} and its domain and range.
18. Find the quadratic polynomial in x , which when divided by $(x - 1)$, $(x - 2)$ and $(x - 3)$ leaves remainders of 11, 22 and 39 respectively.

Group - 'B'

(Linear Programming, Real numbers and Progressions)

19. A shopkeeper sells not more than 50 shirts of each colour. At least twice as many white ones are sold as green ones. If the profit on each of the white be Rs. 20, and that on green be Rs. 25, how many of each kind be sold to give him a maximum profit ?
20. If $a^{\frac{1}{3}} + b^{\frac{1}{3}} + c^{\frac{1}{3}} = 0$, then show that $(a + b + c)^3 = 27abc$
21. Find the sum to 'n' terms in the following series $1.2 + 2.3 + 3.4 + \dots$
22. The A.M., G.M., and H.M. of two numbers are A, G, H respectively. Show that $A \geq G \geq H$.

SECTION - IV (Marks : $1 \times 5 = 5$)

(Linear Programming, Quadratic Equations and Inequations)

- Note :**
1. Answer **ANY ONE** question from the following.
 2. This question carries **5** Marks.

23. Using the graph $y = x^2$, solve the equation $x^2 - 4x + 3 = 0$.
24. Minimise $f = x + y$ subject to the conditions $x + y \geq 6$; $2x + y \geq 8$; $x \geq 0$; $y \geq 0$.

- Note : 1. Each question carries $\frac{1}{2}$ mark.
 2. Answers are to be written in the question paper only.
 3. All questions are to be answered.
 4. Marks will not be given for over written, re-written or erased answers.

I. Write the letter showing the correct answer in the brackets provided under each question.

1. $A \cup A'$ = []
 A) \forall B) ϕ C) \exists D) μ
2. A and B are disjoint sets. If $n(A) = 4$, $n(A \cup B) = 10$, then $n(B) =$ []
 A) 5 B) 4 C) 6 D) 14
3. The zero value of the function of $f(x) = 2x - 3$ is []
 A) $\frac{3}{2}$ B) $\frac{2}{3}$ C) 0 D) $-\frac{3}{2}$
4. If $(a + b, 1) = (5, a - b)$, then $2a + 3b =$ []
 A) 5 B) 12 C) 8 D) 6
5. If $x^2 - x - 6 < 0$, then the value of x []
 A) lies between -3 and 2. B) lies between 3 and -2.
 C) does not lie between -3 and 2. D) does not lie between 3 and -2.
6. $x + 1$ is a factor to $ax^4 + bx^3 + cx^2 + dx + e$. Then which of the following is true? []
 A) $a + c + e = b + d$ B) $a + b + c = 0$ C) $a + b + c + d + e = 0$ D) $a + b + c = d + e$
7. The point which does not satisfy the in-equation $3x + y > 6$ is []
 A) (1, 0) B) (2, 3) C) (3, 2) D) (6, 0)
8. If $2^{x+3} = 4^{x+1}$, then value of x = []
 A) 1 B) 0 C) $-\frac{1}{3}$ D) 2
9. 7th term of the following series $1, -\frac{1}{2}, \frac{1}{4}, \dots$ is []
 A) $-\frac{1}{8}$ B) $\frac{1}{16}$ C) $-\frac{1}{32}$ D) $\frac{1}{64}$
10. 1, 2, 3, 4, sum to 10 terms is []
 A) 5050 B) 505 C) 55 D) 50

II. Fill in the blanks with suitable answers.

11. The statement which uses the connective "AND" is called a
12. The symbol for Existential quantifier is
13. If $f : A \rightarrow B$, $g : B \rightarrow C$, then $g \circ f =$
14. If a function is One-One and On-to, then the function is called
15. Product of the roots of $x^2 - 2x = 15$ is
16. $y = x$ passes through
17. $\lim_{x \rightarrow a} \frac{x^n - a^n}{x - a} =$
18. $16^{0.5} =$
19. Arithmetic mean of $a - 2$, a , $a + 2$ is
20. If a, b, c are in G.P., then $b^2 =$

III. For the following questions under Group A, choose the correct answer from the Master list (Group B) and write the letter of the correct answer in the brackets provided against each item.

i)	Group - 'A'		Group - 'B'
21.	$\sim (p \wedge q) = \dots\dots\dots$	[]	A) 5
22.	$n(A) = 4, n(B) = 3, n(A \cap B) = 2$ then $n(A \cup B) = \dots\dots\dots$	[]	B) 2
23.	If $f(x) = x, g(x) = x^2$ then $\text{fog}(2) = \dots\dots\dots$	[]	C) 4
24.	If $f = \{(1, 2), (2, 2), (3, 2)\}$ then the range of f is $\dots\dots\dots$	[]	D) 7
25.	The number of terms in the expansion of $(x + y)^6$ is $\dots\dots\dots$	[]	E) $\sim p \vee \sim q$ F) $\{2\}$ G) $\sim p \wedge \sim q$ H) $\{1, 2, 3\}$
ii)	Group - 'A'		Group - 'B'
26.	Given $P = \frac{1}{4}x + \frac{3}{2}y$, then the value of P at the point $(0, 12)$ is $\dots\dots\dots$	[]	I) tangent
27.	$\frac{a-b}{\sqrt{a}+\sqrt{b}} = \dots\dots\dots$	[]	J) -2
28.	The limiting position of a secant of a circle is $\dots\dots\dots$	[]	K) 70
29.	Sum of the 5 terms in the following series, $1.2 + 2.3 + 3.4 + \dots\dots$ is $\dots\dots\dots$	[]	L) 1
30.	The common ratio of the series $3, -6, 12, -24, 48, \dots\dots$ is $\dots\dots\dots$	[]	M) 18 N) secant O) $\sqrt{a} - \sqrt{b}$ P) $\sqrt{a} + \sqrt{b}$

PART - B : ANSWERS

I.	1) D	2) C	3) A	4) B	5) B	6) A	7) A	8) A	9) D	10) C
II.	11) conjunction	12) \exists	13) $A \rightarrow C$	14) Bijection	15) -15	16) The origin	17) $n \cdot a^{n-1}$	18) 4	19) a	20) ac
III.	i) 21) E	22) A	23) C	24) F	25) D	ii) 26) M	27) O	28) I	29) K	30) J



Maths Paper - II

Time : $2\frac{1}{2}$ Hours]

PARTS - A & B

[Max. Marks : 50

Instructions :

1. Answer the questions under Part 'A' on a separate answer book.
2. Write the answers to the questions under Part 'B' on the question paper itself and attach it to the answer book of Part (A).

Time : 2 Hours]

PART - A

[Marks : 35

SECTION - I

(Marks : $5 \times 2 = 10$)

- Note :
1. Answer ANY FIVE (5) questions choosing **atleast TWO (2)** from each of the following Groups A & B.
 2. Each question carries 2 marks.

Group - 'A'

1. Show that the lengths of two tangents drawn from an external point to a circle are equal.
2. Find the ratio in which the Y-axis divides the line segment joining the points $(-3, 2)$ and $(6, 1)$.
3. Find the intercepts made by the straight line $3x + y + 4 = 0$ on Co-ordinate axes.
4. The mean of 10 observations is 16.3. By an error, one observation is registered as 32 instead of 23. Find the correct mean ?

Group - 'B'

5. If $\cot \theta = \frac{3}{4}$, then find $\operatorname{cosec} \theta$.
6. If $\hat{(x \ y)} \begin{pmatrix} 2 & 3 \\ 0 & 1 \end{pmatrix} = (6 \ 10)$, then find the values of x and y.
7. What are the essential components of a Computer ?
8. What are the types of operations a Computer performs ?

SECTION - II

(Marks : $4 \times 1 = 4$)

- Note :
1. Answer ANY FOUR of the following SIX questions.
 2. Each question carries 1 mark.

9. In $\triangle ABC$, $DE \parallel BC$; the points D, E lie on AB, AC respectively and D is the mid-point of AB. Find $\frac{AE}{EC}$.
10. Find the slope of the line making an angle 150° in the positive direction of X-axis.
11. Convert 270° into Circular measure.
12. Find the mean of first n natural numbers.

13. If $\begin{vmatrix} 2a & 5 \\ 6 & 3 \end{vmatrix} = 0$, then find a.

14. Write any two Computer languages.

SECTION - III

(Marks : $4 \times 4 = 16$)

- Note :** 1. Answer **ANY FOUR** questions choosing **at least TWO** from each of the following groups.
 2. Each question carries 4 marks.

Group - 'A'

15. State and prove the converse of Pythagoras theorem.
 16. Find the equation of the line that cuts off intercepts a and b on X and Y-axes respectively, such that $a + b = 3$ and $ab = 2$.
 17. If the area of the triangle formed by the vertices $(t, 2t)$, $(-2, 6)$, $(3, 1)$ is 5 sq. units, find t.
 18. The marks scored by 100 students are given below. Find the mode.

Marks scored	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74
Number of students	8	20	28	37	10	4

Group - 'B'

19. If $a = x \cos \theta + y \sin \theta$ and $b = x \sin \theta - y \cos \theta$, then obtain a relation in x and y by eliminating θ .
 20. If $A = \begin{bmatrix} 1 & 4 \\ 0 & -1 \end{bmatrix}$; $B = \begin{bmatrix} 2 & m \\ 0 & -\frac{1}{2} \end{bmatrix}$ and $AB = BA$, then find m.
 21. Solve the equations using Matrix Inverse method. $3x + 4y - 5 = 0$; $x - 2y + 6 = 0$
 22. Draw a Flow Chart to compute the sum of the first 100 natural numbers.

SECTION - IV

(Marks : $1 \times 5 = 5$)

- Note :** 1. Answer **ANY ONE** question from the following questions.
 2. The question carries 5 marks.

23. Construct a triangle ABC in which $BC = 5$ cm; $\angle A = 70^\circ$ and median $AD = 3.5$ cm.
 24. An aeroplane at an altitude of 2500 mts. observes the angles of depression of opposite points on the two banks of a river to be $41^\circ 20'$ and $52^\circ 10'$. Find the width of the river in meters.

(Useful Tangent Table)

Minutes \ Degrees	Mean Differences									
	0'	6'	12'	18'	24'	1'	2'	3'	4'	5'
41°	0.8693	8724	8754	8785	8816	5	10	16	21	26
52°	1.2799	2846	2892	2938	2985	8	16	24	31	39

- Note : 1. All questions carry equal marks, i.e., $\frac{1}{2}$ mark.
 2. Answers are to be written in the question paper as directed.
 3. All questions are to be answered.
 4. Marks will **not** be given for over written, re-written or erased answers.

I. Write the 'CAPITAL LETTER' showing the correct answer in the bracket provided against each question.

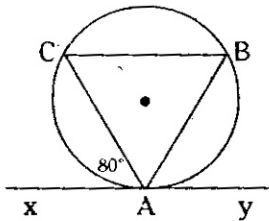
1. In a triangle XYZ, if the internal bisector of $\angle X$ meets YZ in P, then []
 A) $\frac{XY}{XZ} = \frac{YP}{PZ}$ B) $\frac{XY}{PZ} = \frac{XZ}{YP}$ C) $\frac{XY}{XZ} = \frac{PZ}{XP}$ D) $\frac{XZ}{XY} = \frac{YP}{YZ}$
2. If two circles of radii 3 cm, 5 cm touch each other internally, then the distance between their centres is (in cms) []
 A) 8 B) 2 C) 35 D) 15
3. The slope of the line which is parallel to the line $3x - 2y + 1 = 0$ is []
 A) $\frac{3}{2}$ B) $\frac{2}{3}$ C) 3 D) $-\frac{2}{3}$
4. The mathematician, who introduced Co-ordinate Geometry is []
 A) I.J. Silvestar B) Cramer C) Rene Descartes D) Newton
5. For a given data mean is 39, median is 38, then the mode is []
 A) 39 B) 38 C) 36 D) None
6. $\sin^2 9 + \sin^2 81 =$ []
 A) 1 B) 0 C) $\frac{1}{2}$ D) $\frac{\sqrt{3}}{2}$
7. The value of $\sin \theta$ in terms of $\sec \theta$ is []
 A) $\sqrt{\sec^2 \theta - 1}$ B) $\frac{\sqrt{\sec^2 \theta - 1}}{\sec \theta}$ C) $\frac{\sec \theta}{\sqrt{\sec^2 \theta - 1}}$ D) $\sqrt{\frac{\sec^2 \theta - 1}{\sec \theta}}$
8. If $P = \begin{bmatrix} 3 & 0 \\ 0 & \lambda \end{bmatrix}$ is a Scalar matrix, then $\lambda =$ []
 A) 0 B) 1 C) $\frac{1}{3}$ D) 3
9. While solving the equations $3x+4y = 8$ and $x - 6y = 10$ by Cramer's method, the matrix $B_1 =$ []
 A) $\begin{bmatrix} 3 & 4 \\ 1 & -6 \end{bmatrix}$ B) $\begin{bmatrix} 8 \\ 10 \end{bmatrix}$ C) $\begin{bmatrix} 8 & 4 \\ 10 & -6 \end{bmatrix}$ D) $\begin{bmatrix} 3 & 8 \\ 1 & 10 \end{bmatrix}$
10. Small transistors are used in this generation of Computers []
 A) First B) Second C) Third D) Fourth

II. Fill in the blanks with suitable answers.

11. All parts of Computer are controlled by
12. Diagrammatic representation of an Algorithm is
13. If $A = \begin{bmatrix} a \\ b \end{bmatrix}$, $B = [c \ d]$, then $AB =$
14. If $A = \begin{bmatrix} 1 & 2 \\ 1 & 3 \end{bmatrix}$, then $A^{-1} =$

15. In $\triangle ABC$, $\angle B = 90^\circ$, $\angle CAB = 30^\circ$ and $AC = 10$, then $BC = \dots\dots\dots$

16.



In the adjacent figure \overline{XY} is a tangent to the circle at A; $\angle CAX = 80^\circ$ and $AB = AC$, then $\angle ABC = \dots\dots\dots$

17. The ratio of corresponding sides of two similar triangles is 3 : 4, then the ratio of their areas is.....

18. The Centroid of the triangle with vertices $(-1, 0)$, $(5, -2)$, $(8, 2)$ is

19. The mid-value of the class 10 - 19 is

20. The median of scores $x_1, x_2, 2x_1$ is 6 and $x_1 < 2x_1 < x_2$, then $x_1 = \dots\dots\dots$

III. For the following questions under Group A, choose the correct answer from the Master list (Group B) and write the letter of the correct answer in the brackets provided against each item.

i)	Group - 'A'	Group - 'B'
21.	The height of an equilateral triangle with side $2\sqrt{3}$ is	[] A) 7
22.	The slope of $y = 2x - 3$ is	[] B) 5.5
23.	The area of \triangle with vertices $(0, 0)$, $(0, 2)$, $(1, 0)$ is	[] C) 5
24.	Median of scores 8, 10, 4, 3, 2, 11, 1 is	[] D) 4
25.	In the classes 1 - 5, 6 - 10,, the upper limit of the class 1 - 5 is	[] E) 3 [] F) 2 [] G) 1
ii)	Group - 'A'	Group - 'B'
26.	$\sin(90 + \theta) =$	[] H) Diamond box
27.	$\cos \theta \cdot \tan \theta =$	[] I) $B^{-1}A^{-1}$
28.	$(AB)^{-1} =$	[] J) C.P.U.
29.	Decision box is	[] K) $\cos \theta$
30.	A component of hardware	[] L) $\sin \theta$ [] M) Programme [] N) $-\sin \theta$ [] O) $A^{-1} \cdot B^{-1}$ [] P) Rectangle box

PART - B : ANSWERS

I. 1) A 2) B 3) A 4) C 5) C 6) A 7) B 8) D 9) C 10) B

II. 11) Control unit or C.P.U. 12) Flow chart 13) $\begin{pmatrix} ac & ad \\ bc & bd \end{pmatrix}$ 14) $\begin{pmatrix} 3 & -2 \\ -1 & 1 \end{pmatrix}$

15) 5 16) 80° 17) 9 : 16 18) (4, 0) 19) 14.5 20) 3

III. i) 21) E 22) F 23) G 24) D 25) B
ii) 26) K 27) L 28) I 29) H 30) J

Physical Sciences

Time : 2½ Hours]

PARTS – A & B

[Max. Marks : 50

Instructions :

1. Answer the questions under Part 'A' on a separate answer book.
2. Write the answers to the questions under Part 'B' on the question paper itself and attach it to the answer book of Part (A).

Time : 2 Hours]

PART – A

[Marks : 35

SECTION – I (Marks : 5 × 2 = 10)

- Note :
- 1) Answer ANY FIVE questions, choosing atleast TWO from each GROUP.
 - 2) Each question carries TWO marks.

Group – A

1. Distinguish between a rotatory motion and a circular motion.
2. State and explain Inverse Square Law of Magnetism.
3. What is the effect of temperature on the energy gap of a semiconductor ?
4. Draw the block diagram of a Computer.

Group – B

5. Why electrons enter into 4s orbital but not 3d after filling 3p orbital ?
6. Draw the bond formation of H₂ molecules.
7. Calculate the number of moles of NaOH present in 750 ml. of 0.4M solution. [Mol. Wt. of NaOH is 40]
8. Mention the methods of manufacture of Cement.

SECTION – II (Marks : 4 × 1 = 4)

- Note :
- 1) Answer ANY FOUR of the following SIX questions.
 - 2) Each question carries ONE mark.

9. What is acceleration due to Gravity ?
10. What is a resonating air-column ?
11. Define the term Mass - defect.
12. What is Hund's principle ?
13. What is an Arrhenius acid ?
14. What are the Primary Nutrients ?

SECTION – III (Marks : 4 × 4 = 16)

- Note :
- 1) Answer ANY FOUR questions, choosing atleast TWO from each GROUP.
 - 2) Each question carries FOUR marks.

Group – A

15. What are the important applications of Laser Light in Science & Technology ?
16. Derive $R = R_1 + R_2 + R_3$.

17. Explain Nuclear Reactor and how the chain reaction is controlled ?

18. Explain the formation of p -type and n -type semi-conductors.

Group - B

19. Explain Pauli's exclusive principle with examples.

20. Explain s - p overlap with examples.

21. Explain how does atomic size and ionization energy vary in a Group and a Period.

22. How is Detergent industrially manufactured ?

SECTION - IV (Marks : 1 × 5 = 5)

Note : 1) Answer **ANY ONE** of the following questions.

2) This question carries **FIVE** marks.

23. Draw and label the diagram showing various regions of electromagnetic spectrum and their wave-length ranges.

24. Draw the diagram showing the manufacture of Sugar from Sugarcane.

[Time : 30 Minutes]

PART - B

[Marks : 15]

Note :

1) Answer **all** questions.

2) Each question carries $\frac{1}{2}$ mark.

3) Candidates must use the **CAPITAL LETTERS** while answering the multiple choice questions.

4) Marks will **not** be awarded in case of any overwriting or re-writing or erased answers.

1. Write the letter of the correct answer in the brackets provided against each question.

1. Hexose contains. []

- A) 3 Carbons B) 4 Carbons
C) 5 Carbons D) 6 Carbons

2. According to Kepler concept, the orbit of a planet around the sun is []

- A) circular B) elliptical
C) rectangular D) linear

3. The electro-magnetic waves are []

- A) stationary waves
B) transverse waves
C) longitudinal waves
D) both transverse and longitudinal

4. The electro-magnetic radiation observed in radio-activity is []

- A) α B) β C) γ D) X-rays

5. The distance between successive node and antinode []

- A) $\frac{\lambda}{2}$ B) $\frac{\lambda}{8}$ C) $\frac{\lambda}{4}$ D) λ

6. Which of the following is not a Diamagnetic substance ? []

- A) Air B) Water
C) Iron D) Bismuth

7. Which of the following is an ore of Mg ?

- A) Beryl B) Barytes []
C) Carnallite D) Hematite

8. 4 ml. of alcohol is dissolved in 36 ml. of water. The volume percentage of the solution is []

- A) 10 B) 20 C) 30 D) 40

9. Bond length in Graphite (Å units) []

- A) 2.45 B) 2.42 C) 4.21 D) 2.81

10. Chief component of cooking gas is []

- A) Butane B) Ethane
C) Methane D) Octane

- II. Fill in the blanks :**
- For a body moving under the influence of gravity, time of ascent is equal to
 - When a body is projected upwards, the acceleration due to gravity is taken
 - Candela is the unit of
 - The value of the magnetic permeability of the space μ_0 is.....

- The conductors, which do not obey Ohm's law, are called as
- Rutherford proposed planetary model based on experiment.
- If $\text{pH} > 7$, the solution is
- The presence of alcoholic functional group is tested by addition of metal.
- Cold cream is an emulsion of
- The process of cooling glass is called

III. Match the following :

Group 'A'	PHYSICS	Group 'B'
21. α - particle	[]	A) Negative charge
22. β - particle	[]	B) $4n + 3$ series
23. γ - ray	[]	C) Positive charge
24. Thorium series	[]	D) $4n + 2$ series
25. Actinium series	[]	E) $4n$ series
		F) $4n - 1$ series
		G) Electrically neutral

Group 'A'	CHEMISTRY	Group 'B'
26. Alkane	[]	A) C_2H_4
27. Alkene	[]	B) $\text{C}_2\text{H}_5\text{OH}$
28. Alkyne	[]	C) C_6H_6
29. Acid	[]	D) C_4H_{10}
30. Benzene	[]	E) C_2H_2
		F) CH_3OCH_3
		G) CH_3COOH

PART - B : ANSWERS

I. 1) D 2) B 3) B 4) C 5) C 6) C 7) C 8) A 9) - 10) A

II. 11) time of descent or $\frac{u}{g}$ 12) Negative or (-g)
 13) Luminous intensity or illuminating power 14) $4\pi \times 10^{-7}$ Henry/metre
 15) Non - ohmic or Non-linear conductors 16) α -ray scattering
 17) Basic solution 18) sodium 19) oil and water 20) annealing

III. 21) C 22) A 23) G 24) E 25) B 26) D 27) A 28) E 29) G 30) C

Note : For Question - 9 no correct answer was given.



Social Paper - I

Time : 2 $\frac{1}{2}$ Hours]

PARTS - A & B

[Max. Marks : 50

- Instructions :** 1) Answer the questions under **Part - A** on a separate answer book.
2) Write the answers to the questions under **Part - B** on the question paper itself and attach it to the answer book of **Part - A**.
3) Attach the given outline map of the **World** with the answer book of **Part - A**.

Time : 2 Hrs.]

PART - 'A'

[Marks : 35

SECTION - I (Marks : 5 × 2 = 10)

- Note :** 1) Answer ANY FIVE questions, choosing atleast TWO from each GROUP.
2) Each question carries 2 marks.

Group - A

1. What were the guiding principles of the Congress of Vienna ?
2. How did Europeans succeed in Colonising China ?
3. Write any four principles of Fascism.
4. Explain 'Salt Satyagraha' movement.

Group - B

5. Define National and State Parties.
6. What is the difference between General elections and Bye-elections ?
7. What are the objectives of SAARC ?
8. Mention any three safety - measures for riding bicycles.

SECTION - II (Marks : 4 × 1 = 4)

- Note :** 1) Answer ANY FOUR of the following questions in **one** or **two** sentences each.
2) Each question carries 1 mark.

9. What is "First International" ?
10. Name the two programmes that were amalgamated into Janma Bhoomi programme. (Not in syllabus)
11. What are the unifying factors of Indian culture ?
12. What is the characteristic feature of India's Foreign Policy ?
13. What is meant by Regionalism ?
14. Write full form of I.B.R.D.

SECTION - III (Marks : 4 × 4 = 16)

- Note :** 1) Answer ANY FOUR questions, choosing TWO from each of the following Groups A and B.
2) Each question carries 4 marks.

Group - A

15. Narrate, how Italy achieved unification under the leadership of Sardinia state.
16. What were the factors responsible for the rise of Imperialism ?

17. What were the results of the First World War ?
18. What are the contributions of Mughals to Indian Architecture ?

Group - B

19. Explain the basic elements of Indian Democracy.
20. What are the ways to curb communalism in India ?
21. What is Secularism ? How is India committed to it ?
22. Enumerate the problems of environmental pollution and ecological decay.

SECTION - IV (Marks : 1 × 5 = 5)

Note : Mark the following places in the given **World** outline map.

23. **Group - A :** 1. Canada 2. Venezuela 3. Norway 4. Netherlands 5. Mediterranean Sea

(OR)

- Group - B :** 1. Belgium 2. Somalia 3. India 4. Nepal 5. South Korea

Time : 30 Minutes]

PART - B

[Marks : 15

Instructions : 1) Answer *all* the questions.

2) Each question carries 1/2 mark.

3) For questions 1 to 10, the answers are given under A, B, C and D. Candidates must use the Capital Letters while answering the multiple choice questions.

4) Marks will **not** be awarded in case of any over-writing or re-writing or erased answers.

Note : Answer the following questions in the space provided and attach it to the main answer book of **Part - A**.

I. Write the letter showing the correct answer in the brackets provided against each question. 10 × 1/2 = 5

1. 'Confederation of Rhine' was formed by ()

- A) Napoleon B) Bismarck
C) Charles Albert D) Charles - X

2. **Das Kapital** was written by ()

- A) Louis Blanc B) Plato
C) Karl Marx D) Abraham Lincoln

3. **Congress of Vienna** was held in the year

- A) 1848 B) 1840
C) 1830 D) 1815

4. In 1949, **People's Republic of China** emerged under the leadership of ()

- A) Chiang - Kai - Sheik
B) Mao-Tse - Tung
C) Chou-En-Lai D) Dr. Jiyang

5. 'New Deal' Policy was introduced by the American President ()

- A) Coolidge B) Eisenhower
C) Roosevelt D) Reagan

6. The year in which **Bolshevik Revolution** took place in Russia. ()

- A) 1905 B) 1917
C) 1925 D) 1935

7. **Annie Besant** belongs to ()

- A) England B) Ireland
C) Holland D) India

8. The number of languages recognised by the Indian Constitution ()

- A) 26 B) 18
C) 16 D) 15

9. **United Nations Organisation** came into existence on ()

- A) 24 Oct. 1946 B) 24 Oct. 1945
C) 23 Oct. 1944 D) 24 Oct. 1942

10. **Mahabalipuram** is the best example of the art of ()

- A) Mughals B) Cholas
C) Guptas D) Pallavas

- II. Fill in the blanks with suitable answers :**
 $10 \times 1/2 = 5$
11. The treaty of Versailles was signed between allied powers and
 12. Lenin was the editor of the Newspaper
 13. The first emperor of United Germany was
 14. The policy of Blood and Iron was followed by
 15. Palestine problem was a struggle between Arabs and
 16. The religion that preached equal people in ancient India is
 17. "National Conference" is a Regional in state.
 18. There are circles in Janmabh flag. (Not in syll)
 19. The Red Fort in Delhi was built by
 20. The Thirteenth General Elections in took place in

III. Match the following by writing the letter of the correct answer in the brackets, choose from the Group - B.
 $10 \times 1/2 = 5$

i) Group - 'A'		Group - 'B'	
21. Opium wars	[]	A) India, China.	
22. Atlantic Charter Central	[]	B) America joined the war on the side of Allies.	
23. Young Italy	[]	C) England and China.	
24. Lord Curzon	[]	D) Bismarck.	
25. General O' Dyer	[]	E) Mazzini.	
		F) Jallianwalla Bagh.	
		G) America joined the war on the side of Allies.	
		H) Partition of Bengal.	

ii) Group - 'A'		Group - 'B'	
26. National Literacy Mission	[]	A) 1950	
27. Universal Declaration of Human Rights	[]	B) 1953	
28. Bandung Conference	[]	C) 1988	
29. The Andhra state was created	[]	D) 1948	
30. Dowry Prohibition Act	[]	E) 1956	
		F) 1955	
		G) 1961	
		H) 1960	

PART - B : ANSWERS

- I.** 1) A 2) C 3) D 4) B 5) C 6) B 7) B 8) B 9) B 10) D
- II.** 11. Germany 12. Iskra 13. William I 14. Bismark 15. Jehangir
16. Buddhism 17. Jammu & Kashmir 18. Three 19. Shahjahan 20. 1952
- III.** 21 - C 22 - G 23 - E 24 - H 25 - F
- 26 - C 27 - D 28 - F 29 - B 30 - G

Social Paper - II

Time : 2½ Hours]

PARTS - A & B

[Max. Marks : 50

- Instructions :** 1) Answer the questions under **Part - A** on a separate answer book.
2) Write the answers to the questions under **Part - B** on the question paper itself and attach it to the answer book of **Part - A**.
3) Attach the given outline map of the **India** with the answer book of **Part - A**.

Time : 2 Hrs.]

PART - 'A'

[Marks : 35

SECTION - I (Marks : 5 × 2 = 10)

- Note :** 1) Answer ANY FIVE questions, choosing atleast TWO from each of the following Groups A and B.
2) Each question carries TWO marks.

Group - A

1. Why India can be called a sub-continent ?
2. Give a brief account of major problems of rainfall in India.
3. What are the problems of population explosion ? Any four.
4. What are the natural scenic beauties of Srinagar ?

Group - B

5. Write about Mahalwari system.
6. How can you know a country is economically developed or not ?
7. How many categories emerge when classified by type of output ? What are they ?
8. What are the general and specific objectives of Planning in India ?

SECTION - II (Marks : 4 × 1 = 4)

- Note :** 1) Answer ANY FOUR questions in one or two sentences.
2) Each question carries ONE mark.
9. Define the Mac Mahon Line.
 10. Name the important four forest based industries.
 11. What are the important measures of soil conservation ?
 12. Define the Socialist Economic System and give two examples.
 13. Define Poverty Line.
 14. Who is the Chairman of Planning Commission ?

SECTION - III (Marks : 4 × 4 = 16)

- Note :** 1) Answer ANY FOUR questions, choosing TWO from each Group.
2) Each question carries FOUR marks.

Group - A

15. How can you say that India is a land marked by unity in diversity ?
16. Describe the mechanism of monsoon in India.

17. What are the problems faced by Indian agriculture ?
 18. What do you mean by a Multi - purpose Project ? Mention its main objectives.

Group - B

19. Explain the factors causing inequalities in income and wealth in India.
 20. What is the role of Banking and Financial institutions in India ? Will Privatisation help in realising the objectives ?
 21. Describe the occupational structure of the Indian Economy.
 22. What are the achievements and failures of Indian Planning ?

SECTION - IV (Marks : 1 × 5 = 5)

Note : Mark the following places in the outline Map of India given to you.

23. Group - A

1. Srinagar 2. Kanyakumari 3. Deccan Plateau 4. Delhi 5. River Mahanadi

(OR)

Group - B

1. Hyderabad 2. Eastern Railway 3. Mumbai Sea Port
 4. National Highway - 7 5. Andaman and Nicobar islands

Time : 30 Min.]

PART - B

[Marks : 15

Instructions : 1) Answer all the questions.

2) Each question carries 1/2 mark

3) Candidates must use the Capital Letters while answering these multiple choice questions.

4) Marks will **not** be awarded in case of any over-writing or re-writing or erased answers.

Note : Answer the following questions in the space provided and attach it to the main answer book of Part - A.

I. Choose the correct answers : 10 × 1/2 = 5

1. Greenwich is near to ()
 A) London B) Moscow
 C) New York D) Tokyo
2. Capital city of Goa ()
 A) Silvassa B) Panaji
 C) Chennai D) Imphal
3. The soil without free carbonates ()
 A) Alluvial B) Black
 C) Laterite D) Red
4. The state with the lowest density of population ()
 A) Arunachal Pradesh
 B) Jammu and Kashmir
 C) Sikkim
 D) Mizoram
5. In Andhra Pradesh, Iron-ore deposits are in the district of ()
 A) Mehaboobnagar B) Kurnool
 C) Khammam D) Nellore

6. Kharif crop ()
 A) Paddy B) Wheat
 C) Pulse D) Ground nuts
7. In 1995, India's per capita income in dollars was ()
 A) 220 B) 340 C) 460 D) 620
8. Planning Commission in India was set-up in the year. ()
 A) 1948 B) 1949 C) 1950 D) 1951
9. Financial institutions come under ()
 A) Primary Sector B) Service Sector
 C) Secondary Sector D) Tiny Sector
10. Second Five Year Plan period ()
 A) 1951 - 56 B) 1956 - 60
 C) 1961 - 66 D) 1956 - 61

II. Fill in the blanks with suitable answers :
 $10 \times 1/2 = 5$

11. The Indian island closest to the Equator is
12. Terai is a
13. India receives bulk of its rainfall from
14. India is in Copper production.
15. Silk industry predominates in State.
16. Income earned through wealth and property, is known as

17. Under unemployment marginal productivity is zero or negative.
18. Scheduled Commercial Banks are those which fulfill the conditions stipulated in
19. Agriculture, fishing, plantation are included in Sector.
20. Structural inflation is rampant in

III. Match the following.

$10 \times 1/2 = 5$

i) Group - 'A'

Group - 'B'

- | | | |
|-----------------------------|-----|-----------------------|
| 21. The roof of the world | [] | A) Oil Refinery |
| 22. Severe flood prone zone | [] | B) Petroleum |
| 23. Pine | [] | C) Uttar Pradesh |
| 24. Bombay High | [] | D) Tibet |
| 25. Noonmathi | [] | E) Madhura |
| | | F) Himalayas |
| | | G) Brahmaputra Valley |
| | | H) Trans Himalaya |

ii) Group - 'A'

Group - 'B'

- | | | |
|----------------------------|-----|---------------------------------------|
| 26. D.R. Gadgil | [] | A) Population/National Income |
| 27. Social Housing Schemes | [] | B) Increasing of towns |
| 28. Urbanisation | [] | C) Economic Drain |
| 29. Inflation | [] | D) Plunder of Wealth |
| 30. Per Capita Income | [] | E) I.A.Y., U.B.S. |
| | | F) Growth of Population. |
| | | G) Sustained Rise in level of prices. |
| | | H) Increase in Demand. |

PART - B ANSWERS

- I.** 1) A 2) B 3) D 4) A 5) B/C 6) A 7) B 8) C 9) B 10) D
- II.** 11. The Great Nicobar 12. Marshy Tract 13. South West Monsoon 14. Deficient
 15. Karnataka 16. Unearned 17. Disguised
 18. Second Schedule of RBI Act / RBI Act 19. Primary 20. Latin America
- III.** 21 - D 22 - G 23 - F 24 - B 25 - A
 26 - C 27 - E 28 - B 29 - G 30 -

Note : No answer Matches with Q.No. 30.