

Diagnostic cum Scholarship Tests

SAMPLE PAPER

For Students of Class IX

Paper 1 - IQ

Duration : 90 minutes

Paper Code: 89-1

Maximum Marks : 135

Please read the instructions and guidelines carefully :

Important Note : Please ensure to accurately input the details for the Question Paper Code as indicated at the top of this sheet (Side 2) into the corresponding columns / fields on the OMR sheet before proceeding with the paper. Incorrectly filled information regarding the class or paper may result in inaccurate outcomes or results.

"This paper has been scientifically designed to evaluate your potential – manifested and hidden for the target examinations mentioned in various sections of the paper. Thus, your adherence to the instructions is critical in the evaluation of the same"

1. This Question paper consists of 3 sections.
2. Student should devote allotted time for each section. If a section is easy, then it is easy for everyone & was meant to be like that with a goal in mind. Do not switch over to another section if you find the section to be easy. If a section is tough, then it is tough for everyone. You are advised to spend 30 Minutes on Section-I, 30 Minutes on Section-II and 30 Minutes on Section-III. Dedicating the required time to finish each section successfully is essential. Opening the next section before completing the allotted time for the preceding section is not permitted. This adherence is crucial for assessing your true potential, as each section is meticulously crafted to evaluate your potential for the corresponding competitive examinations.
3. Candidate should open the seal of Section-II only after devoting 30 minutes on Section-I and Seal for Section-III is to be opened only after devoting 30 minutes on Section-II.
4. Sheets will be given to each candidate for rough work. Candidate must fill all details on the rough sheet and submit the same to invigilator along with OMR sheet. Candidate must mention the Question No. while doing the rough work in the sheet.
5. Please note candidates are not allowed to bring any prohibited items into the exam hall such as electronic devices, mobile phones, smart watch, earphones, calculators, books, notes, formula sheets, and bags.
6. Marking scheme is given in table below:

Section	Subject	Question no.	Marking Scheme for each question	
			Correct answer	Wrong answer
SECTION – I (NTSE) Time Allotted: 30 Minutes	IQ	1 to 15	+3	-1
SECTION – II (JEE Main) Time Allotted: 30 Minutes	IQ	16 to 30	+3	-1
SECTION – III (JEE Advanced) Time Allotted: 30 Minutes	IQ	31 to 45	+3	-1

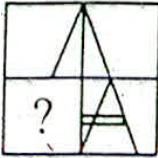




Section - I

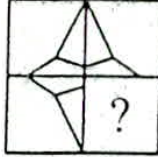




Time: 30 Minutes

IQ


This section contains **9 Multiple Choice Questions** number **1 to 9**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.





Directions (Q.1 to Q.2): In each of the following questions, select a figure from amongst the four alternatives, which when placed in the black space of fig. (X) would complete the pattern.

1.  (X) (A)  (B)  (C)  (D) 

2.  (X) (A)  (B)  (C)  (D) 







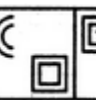

3. Choose a figure which would most closely resemble the unfolded form of Figure (Z).



(1)  (2)  (3)  (4) 

- (A) 1 (B) 2
(C) 3 (D) 4

4. Select a suitable figure from the Answer Figures that would replace the question mark (?).
Problem Figures: Answer Figures:

(a)  (b)  (c)  ? (1)  (2)  (3)  (4)  (5) 

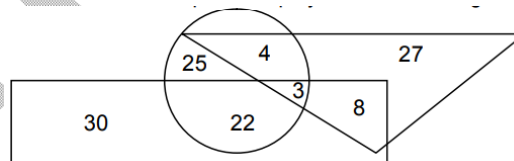
- (A) 1 (B) 2
(C) 3 (D) 4

5. Find the missing term.
9, 27, 81, _____
(A) 324 (B) 243
(C) 512 (D) 676
6. Find the missing term.
5, 9, 17, 29, 45, _____
(A) 60 (B) 65
(C) 68 (D) 70
7. Find the next term in the series
240, 332, 118, 168, 57, 86, ? , 45
(A) 28.5 (B) 26.5
(C) 27 (D) 34.5
8. Find the next term in the series
4, 23, 122, 621, ?
(A) 960 (B) 1728
(C) 3120 (D) 2870
9. In a certain code, the word SYSTEM is coded as ZEXXHO then how do we code the word FLOWER?
(A) MRTAHT (B) LQSAGR
(C) OQTZHS (D) LQSZHT

This section contains **TWO (02)** comprehensions. Based on each comprehension, there are **THREE (03)** questions of **Multiple Choice Questions**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

Comprehension-1 for Q. No. 10 to 12

Study the following figure carefully and answer the questions given below it. The rectangle represents artists, the circle represents players and the triangle represents doctors.



10. How many players are neither artists nor doctors?
(A) 2 (B) 8
(C) 22 (D) 25
11. How many artists are players?
(A) 30 (B) 29
(C) 25 (D) 22
12. How many doctors are both players and artists?
(A) 3 (B) 4
(C) 8 (D) 11

Comprehension-2 for Q. No. 13 to 15

Eight pillars are arranged in a ground in a certain way. A is 12 m west of B. G is 3 m north of F. C is 10 m west of D which is 5 m south of E. H is in exactly between E and F. C is 8 m north of B. E is 24 m east of F.

13. What is the shortest distance between H and D?
(A) 13 m (B) 15 m
(C) 20 m (D) 21 m
14. If a person starts walking from pillar B and stop pillar H, what is the total distance travelled by him?
(A) 28 m (B) 40 m
(C) 35 m (D) 37 m
15. A goods train runs at the speed of 72 kmph and crosses a 250 m long platform in 26 seconds. What is the length of the goods train?
(A) 230 m (B) 240 m
(C) 260 m (D) 270 m

Section – II

Time: 30 Minutes

IQ

This section contains 9 Multiple Choice Questions number 16 to 24. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

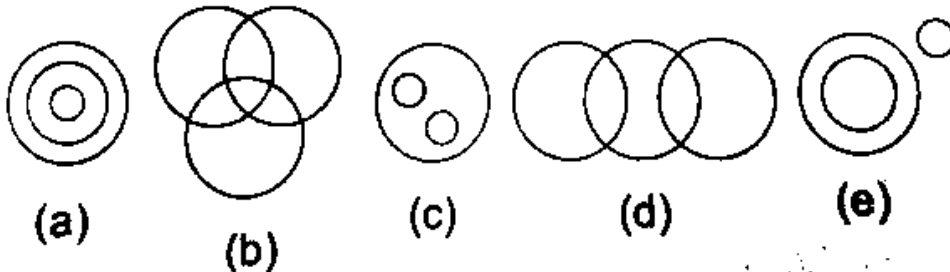
16. In a certain code RESPONSES is written as ESRONPESS, then how can SIGNATURE be written in that code?
(A) ERUTANGIS (B) GISTANERU
(C) IGSATNREU (D) ISNGTARUE
17. If MONKO is coded as 57637, then how KLJMN be coded in the same code?
(A) 32456 (B) 34256
(C) 35156 (D) 32546
18. A man drives his car 50 km towards eastward directions. He turned right went for 30 km, then he turned west and drive for 10 km. How far is he from the starting point?
(A) 50 km (B) 60 km
(C) 100 km (D) 20 km
19. If $54/32 = 4$, $36/42 = 3$, $92/22 = 7$ then what is $28/33 = ?$
(A) 5 (B) 6
(C) 4 (D) 9
20. In a certain code language, 519 means SWEET AND HOT 753 means MANGO IS SWEET 147 means MILK IS HOT. Which digit stands for MILK?
(A) 7 (B) 1
(C) 4 (D) 9

21. If the positions of the digits of a two digit number are interchanged, the number obtained is smaller than the original number by 27. If the digits of the number are in the ratio of 1 : 2, what is the original number?
 (A) 16 (B) 32
 (C) 63 (D) 48
22. Two dice are thrown simultaneously. Find the probabilities that the difference of numbers on the two dice is 2.
 (A) $\frac{1}{6}$ (B) $\frac{7}{36}$
 (C) $\frac{11}{36}$ (D) $\frac{2}{9}$
23. What is the angle between the two hands of a clock when the time is 3 : 30?
 (A) 45° (B) 60°
 (C) 90° (D) 75°
24. A watch which gains time uniformly is 2 minutes slow at 10 am on Sunday and is 4 min 48 sec fast at noon on the following Sunday. When was it correct?
 (A) 2 PM on Tuesday (B) 3 PM on Wednesday
 (C) 2 PM on Monday (D) 12 PM on Tuesday

This section contains **TWO (02)** comprehensions. Based on each comprehension, there are **THREE (03)** questions of **Multiple Choice Questions**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

Comprehension-1 for Q. No. 25 to 27

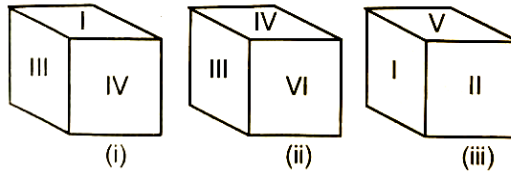
Of the four alternatives in each of the following questions, three alternatives are such that the three words in each are related among themselves in one of the five ways represented by (a), (b), (c), (d) and (e) below while none of these relationships is applicable to the remaining alternative. That is your answer. Choose that one



25. (A) Star, Moon, Mars (B) Professor, Scholar, Politician
 (C) Nurse, Doctor, Woman (D) Swimmer, Carpenter, Singer
26. (A) Director, Engineer, Musician (B) Apple, Orange, Mango
 (C) Fruit, Mango, Grass (D) Oxygen, Air, Water
27. (A) Army, General, Colonel (B) Boy, Student, Player
 (C) Painter, Scholar, Table (D) Man, Typist, Peon

Comprehension-2 for Q. No. 28 to 30

A dice is thrown 3 times and its 3 positions are given. On the basis of given information answer the following questions:



28. Which number is opposite to V?
 (A) III (B) IV
 (C) II (D) VI
29. Which number is opposite to I?
 (A) V (B) VI
 (C) II (D) III
30. Which number is opposite to II?
 (A) III (B) IV
 (C) V (D) None of these

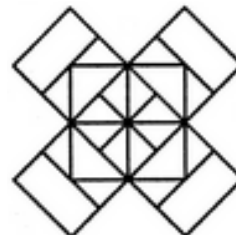
Section - III

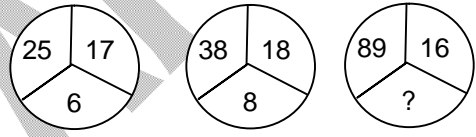
Time: 30 Minutes

IQ

This section contains 9 Multiple Choice Questions number 31 to 39. Each question has 4 choices (A), (B), (C) and (D), out of which ONLY ONE is correct.

31. If Mar 18th, 1994 falls on Friday then Feb 25th, 1995 falls on which day?
 (A) Wednesday (B) Monday
 (C) Saturday (D) Sunday
32. On what dates of July.2004 did Monday fall?
 (A) 6th, 10th, 21st, 30th (B) 12th, 7th, 19th, 28th
 (C) 5th, 10th, 24th, 17th (D) 5th, 12th, 19th, 26th
33. The average of 20 numbers is zero. Of them, at the most, how many may be greater than zero?
 (A) 0 (B) 1
 (C) 10 (D) 19
34. Count the number of squares in the given figure.
 (A) 22
 (B) 20
 (C) 18
 (D) 14



35. A merchant has 1000 kg of sugar part of which he sells at 8% profit and the rest at 18% profit. He gains 14% on the whole. The Quantity sold at 18% profit is
 (A) 400 kg (B) 560 kg
 (C) 600 kg (D) 640 kg
36. If the seconds hand moves by 240° , then by how many degrees does the minute hand move in the same time?
 (A) 1° (B) 2°
 (C) 3° (D) 4°
37. The length and the breath of a rectangle are changed so that its area will not be changed. If length is decreased by $14\frac{2}{7}\%$ then find the change in breath.
 (A) $16\frac{2}{3}\%$ (B) $11\frac{1}{9}\%$
 (C) $9\frac{1}{11}\%$ (D) $14\frac{2}{7}\%$
38. Numbers in the following questions have been arranged using a particular method. Find the number in place of '?'
 (A) 13 (B) 15
 (C) 17 (D) 19
- 
39. **Statements:**
 Some tables are trees
 Some trees are flowers
 All flowers are jungles
Conclusion:
 1. Some jungles are tables
 2. Some trees are jungles
 3. Some flowers are tables
 4. All jungles are flowers
 (A) Only 2 follows (B) Only 1 and 2 follows
 (C) Only 3 follows (D) None of these

This section contains **TWO (02)** comprehensions. Based on each comprehension, there are **THREE (03)** questions of **Multiple Choice Questions**. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

Comprehension-1 for Q. No. 40 to 42

Amit is son of Rahul. Sarika, Rahul's sister has a son Sonu and a daughter Rita. Raja is the maternal uncle of sonu.

40. How is Raja related to Amit?
 (A) Nephew (B) Uncle
 (C) Cousin (brother) (D) None of these
41. How is Rita related to Raja?
 (A) Sister (B) Daughter
 (C) Niece (D) None of these

42. How many nephews does Raja have?
(A) 1 (B) 2
(C) 3 (D) 0

Comprehension-2 for Q. No. 43 to 45

Each of these questions is based on the following information:

- (i) $Y \% Z$ means Y is the brother of Z.
(ii) $Y @ Z$ means Y is the mother of Z.
(iii) $Y \$ Z$ means Y is the father of Z.
(iv) $Y * Z$ means Y is the son of Z.

43. Which of the following expression shows the relation that M is mother of G?
(A) $S \% Q @ M \% G$ (B) $M @ S \% R \% G$
(C) $M @ B \% S \$ G$ (D) $G @ B \$ N \% M$
44. If the expression $P \% Y @ G * K$ is definitely true, then which of the following is not true?
(A) K is father of G (B) G is nephew of P
(C) K is wife of Y (D) Y is wife of K
45. If the expression $A \$ B * Q @ R$ is definitely true, then which of the following is true?
(A) R is daughter of A (B) R is son of Q
(C) Q is mother of R (D) None of these

FIITJEE

Diagnostic cum Scholarship Tests

SAMPLE PAPER

For Students of Class IX

Paper 1 - IQ

Paper Code: 89-1

ANSWER KEY

- | | | | |
|-------|-------|-------|-------|
| 1. C | 2. D | 3. D | 4. B |
| 5. B | 6. B | 7. B | 8. C |
| 9. A | 10. D | 11. C | 12. A |
| 13. A | 14. C | 15. D | 16. C |
| 17. B | 18. A | 19. C | 20. C |
| 21. C | 22. D | 23. D | 24. D |
| 25. A | 26. B | 27. C | 28. B |
| 29. B | 30. A | 31. A | 32. D |
| 33. D | 34. C | 35. C | 36. D |
| 37. A | 38. B | 39. A | 40. B |
| 41. C | 42. B | 43. B | 44. C |
| 45. A | | | |