

CAT 2014 DILR Slot 1 Question Paper

Time Allowed :2 Hours	Maximum Marks :198	Total Questions :66
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General Instructions

Read the following instructions very carefully:

1. The total duration of the test is **2 hours**, with **40 minutes** allotted per section.
2. The question paper is divided into **three sections**:
 - **Section 1:** Verbal Ability and Reading Comprehension (VARC) – 24 questions
 - **Section 2:** Data Interpretation and Logical Reasoning (DILR) – 20 questions
 - **Section 3:** Quantitative Aptitude (QA) – 22 questions
3. Each correct answer carries **+3 marks**.
4. For multiple-choice questions (MCQs), **–1 mark** will be deducted for each wrong answer.
5. There is **no negative marking** for Type-in-the-Answer (TITA) questions.
6. Once the allotted time for a section ends, you will automatically move to the next section. You cannot go back to a previous section.
7. All answers must be entered on the computer screen using the mouse and keyboard. Rough sheets will be provided.
8. The use of calculators, mobile phones, or any other electronic device is strictly prohibited. An on-screen basic calculator will be provided.

DIRECTIONS : Answer the questions on the basis of the information given below.

The following table gives the total weightage of the top 20% and the total weightage of the bottom 20% of the companies that constitute the index, for twelve of the major stock market indices of the world. In each index, the companies that comprise the index are first arranged in the descending order according to their respective weightages in the index. The top $p\%$, and the bottom $p\%$ of the companies would then be the first $p\%$ and the last $p\%$ of the companies in the list.

Sl. No.	Index	Weightage of bottom 20% of the companies	Weightage of top
1	SENSEX	5.5%	4
2	NIKKEI	7.2%	3
3	KOPSI	3.8%	3
4	DOW JONES	2.7%	4
5	NIFTY	5.1%	4
6	NASDAQ	3.5%	3
7	FTSE 100	2.8%	4
8	HANG SENG	3.1%	4
9	DAX	5.9%	3
10	STRAITS TIMES	6.3%	3
11	KLSE	7.2%	3
12	S & P 500	4.1%	4

Q1. For at least how many of the given indices is the weightage of the bottom 50% of the companies that constitute the index less than 30%?

- (A) 2
- (B) 4
- (C) 6
- (D) Cannot be determined

Q2. Given a total of 30 companies in the SENSEX, find the minimum weightage in the SENSEX of a company among the top 10 companies (by weightage).

- (A) 3.0%
- (B) 2.4%
- (C) 2.0%
- (D) Cannot be determined

Q3. For how many indices is the weightage of the top 40% of the companies definitely more than 60%?

- (A) 2
- (B) 4
- (C) 6

(D) 7

The following tables give some demographic details of eight states – A through H – in a particular year.

Name of the state	Total population (in million)	Majors (%)	Minor males (%)	Minor
A	29.7	61.6	20.3	
B	45.7	67.2	17.0	
C	21.3	70.1	15.3	
D	30.2	56.6	23.8	
E	26.1	64.1	16.7	
F	10.3	55.7	24.3	
G	11.7	56.2	23.2	
H	38.5	67.2	15.4	

Q4. Minors form approximately what percentage of the population of all the eight states put together?

- (A) 28%
- (B) 36%
- (C) 40%
- (D) 44%

Q5. Approximately what percentage of the total population of states A, D and H are majors?

- (A) 57.2%
- (B) 59.1%
- (C) 62.3%
- (D) 66.2%

Q6. What is the approximate number (in million) of minor females in states A, B, and C together?

- (A) 16.3
- (B) 14.2
- (C) 20.1
- (D) 18.4

The table below gives the distribution of marks obtained in five subjects – Mathematics, Physics, Chemistry, Botany and Zoology – by the students of class XII of a school, in their term exam. In the table, the details of the marks in any

subject are given for only those students who appeared for the exam in that subject. Any student who failed to appear for the exam in any subject was considered to have failed in that subject and was not allowed to write that exam again.

2*Subject	Less than 20 marks		20–40 marks		40–60 marks		60–80 marks		80 marks and above	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mathematics	5	6	12	13	28	17	30	15	36	18
Physics	24	8	12	10	18	14	24	20	32	16
Chemistry	26	14	16	18	30	20	18	15	20	12
Botany	18	15	18	11	17	8	24	30	30	15
Zoology	18	4	25	12	12	8	23	35	34	17

Note:

1. Maximum marks in any subject are 100.
2. Not all students have appeared for all the subjects.
3. The number of students not appearing for an exam in any subject is at most 15.

Q7. Minors form approximately what percentage of the population of all the eight states put together?

- (A) 28%
 (B) 36%
 (C) 40%
 (D) 44%

Q8. Approximately what percentage of the total population of states A, D and H are majors?

- (A) 57.2%
 (B) 59.1%
 (C) 62.3%
 (D) 66.2%

Q9. What is the approximate number (in million) of minor females in states A, B, and C together?

- (A) 16.3
 (B) 14.2
 (C) 20.1
 (D) 18.4
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Q10. Each of the five batsmen – A, B, C, D and E – belongs to exactly one team among Rajasthan, Bangalore, Mumbai, Kolkata and Punjab, not necessarily in that order. No two of them belong to the same team. In a twenty-20 tournament, the total runs scored by each of them is unique and is among 96, 112, 64, 72 and 80, in no particular order. The number of balls faced by each of them is a multiple of 4. Each of them faced at least 16 and at most 36 balls. The runs scored per ball by each of them is an integer and is not more than 4.

Further the following information is known:

1. The total runs scored by the batsman of team Mumbai is 24 more than that scored by C.
2. The difference between the runs scored by the batsmen of teams Bangalore and Rajasthan is half the difference between the runs scored by batsmen D and E.
3. No one scored less runs per ball than the batsman who scored 16 runs less than that scored by the batsman of team Kolkata. E does not belong to team Mumbai.
4. B faced the least number of balls and scored 8 runs more than a batsman, who is not a player of team Bangalore.

Who belongs to Punjab?

- (A) A
 - (B) B
 - (C) C
 - (D) E
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Q11. From the same scenario, what is the difference between the scores of the batsman of team Kolkata and that of team Rajasthan?

- (A) 16
 - (B) 8
 - (C) 40
 - (D) 32
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Q12. From the same scenario, what is the number of balls faced by the batsman of team Rajasthan?

- (A) 20
 - (B) 36
 - (C) 24
 - (D) Cannot be determined
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729 small pink cubelets are painted pink on each face and then arranged together so as to form **27** identical medium-sized cubes. Each of these **27** medium-sized cubes is painted black on all the outside faces. The **27** medium-sized cubes are

now arranged to form one large cube and the faces of this large cube are painted pink again.

Q13. What is the number of small cubelets that have at least one face painted black?

- (A) 365
 - (B) 604
 - (C) 556
 - (D) 729
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Q14. what is the number of small cubelets that have at least one face painted pink?

- (A) 125
 - (B) 567
 - (C) 365
 - (D) 729
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Q15. what is the number of small cubelets which have an equal number of faces painted pink and black?

- (A) 0
 - (B) 42
 - (C) 64
 - (D) None of these
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