



भारतीय प्रबंध संस्थान कोषिकोड

Indian Institute  
of Management  
Kozhikode

*Globalizing Indian Thought*



# INDIAN INSTITUTE OF MANAGEMENT KOZHIKODE

## E-MAT SAMPLE QUESTION PAPER



## QUANTITATIVE ABILITY

1)	<p>Abdul had to catch the Janshatabdi express which is scheduled to arrive at 5:45 pm. Netravathi express going to Mumbai crossed Abdul in 27 seconds. Meanwhile, Lokmanya Tilak express going to Trivandrum crossed him in 17 seconds. These two trains crossed each other in 23 seconds. What is the ratio of their speeds?</p> <p>A. 1:3 B. 3:2 C. 3:4 D. 4:3</p>
2)	<p>A sum of money is sufficient to pay A's wages for 18 days and B's wages for 27 days. The money is sufficient to pay the wages of both for:</p> <p>A. 10 days B. 11 days C. 15 days D. 24 days</p>
3)	<p>A, B, and C pool in Rs. 50 Lakh for a business. If A has put in Rs. 4L more than B and B Rs. 5L more than C, out of a total profit of Rs. 35L, what will be the amount A receives ?</p> <p>A. Rs 14.2L B. Rs 14.7L C. Rs 14.8L D. Rs 14.5L</p>
4)	<p>A clock was set to the right time today at 6am. If the clock loses 6 minutes in 24 hours, what will be the true time when the clock indicates 10 AM day-after-tomorrow?</p> <p>A. 10.06 AM B. 9.47 AM C. 10.18 AM D. 10.13 AM</p>
5)	<p>If <math>p - q = 6</math> and <math>p^2 + q^2 = 116</math>, what is the value of <math>p</math>?</p> <p>A. 4 B. 6 C. 8 D. 10</p>

6)	<p>Mr. Akshay stays in a triangular colony. He stays at one vertex, with a bank and a market at the other two vertices. The roads meeting at the market are at 90 degrees. Akshay goes to the bank from his home and then to the market totally covering 160 m. He then walks straight back home from the market. If distance from home to bank is 40 m more than what he covered from bank to market, find the distance he walked from market to home.</p> <p>A. 80 m B. 120 m C. 100 m D. 155 m</p>
7)	<p>In a survey of political preferences, 78% of those asked were in favour of at least one of the proposals I, II and III. 50% of those asked favoured proposal I, 30 % favoured proposal II, and 20% favoured proposal III. If 5 % favoured all the three proposals, what % of those asked favoured more than one of the three proposals?</p> <p>A. 10 B. 12 C. 17 D. 22</p>
8)	<p>An IIMK Faculty Member takes 8 hours 30 min travelling by train from Kozhikode to Infopark but returning by taxi. He would have gained an hour and thirty minutes if he used the taxi both ways. The time he would take to travel by train both ways is:</p> <p>A. 7 hours B. 8 hours 30 minutes C. 9 hours 30 minutes D. 10 hours</p>
9)	<p>If a number is multiplied by 15, it is increased by the square of the number, what is the number?</p> <p>A. 13 B. 14 C. 15 D. 16</p>
10)	<p>1st December 1991 is also the first Sunday of the month. Which is the fourth Tuesday of that month?</p> <p>A. 20th B. 22nd C. 24th D. 25<sup>th</sup></p>

11) Distance between two places is 200 kms. A jeep takes two hours less than a car to cover this distance. If the jeep has 5 kms more speed in a hour than the car, then what is the speed of the car?

A. 12 km/hr  
 B. 20 km/hr  
 C. 25 km/hr  
 D. 30 km/hr

12) The diameter of the smaller circle is equal to the side of the square and the diagonal of the square is equal to the diameter of the bigger circle. The area is of the smaller circle to the bigger circle is in the ratio?

A. 1:2  
 B. 2:3  
 C.  $1:\sqrt{2}$   
 D. 1:4

**Questions 13-15**

The following table gives the number of students appearing in 12<sup>th</sup> Standard examination along with the pass percentage of a particular state board. For the benefit of those students who couldn't pass the examination during the month of March of a given academic year, the board conducts the supplementary examination in the month of June of the same year.

	March	% pass	June	% Pass
2009	660000	60%	304000	31%
2010	695000	65%	306000	37%
2011	720000	62%	310000	40%
2012	765000	58%	315000	41%

13) Considering both the months of March and June, in which year is the number of students passing the examination the minimum.

A. 2009  
 B. 2010  
 C. 2011  
 D. 2012

14) How many of those failed in March 2012 examination didn't appear in June 2012 Supplementary examination? Assume no students from previous years appeared in June 2012 supplementary examination

A. 453000  
 B. 9300  
 C. 321000  
 D. 6300

15)	<p>In which of the following years is the number of students failing the March examination the minimum.</p> <p>A. 2009 B. 2010 C. 2011 D. 2012</p>
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## DATA INTERPRETATION AND LOGICAL REASONING

### Question 16 – 19

In each of the following questions, two statements numbered I and II are given. There may be cause and effect relationship between the two statements. These two statements may be the effect of the same cause or independent causes. These statements may be independent causes without having any relationship. Read both the statements in each question and mark your answer.

16)	<p>Statements:</p> <p>I. The Reserve Bank of India has recently put restrictions on establishing new Banks in the country.</p> <p>II. The small banks in the private and co-operative sector in India are not in a position to withstand the competition of the bigger banks in the public sector.</p> <p>A. Statement I is the cause and statement II is its effect B. Statement II is the cause and statement I is its effect C. Both the statements I and II are independent causes D. Both the statements I and II are effects of independent causes</p>
17)	<p>Statements:</p> <p>I. The state government has recently fixed the fees for professional courses offered by the unaided institutions which are much lower than the fees charged last year.</p> <p>II. The parents of the aspiring students launched a severe agitation last year protesting against the high fees charged by the unaided institutions.</p> <p>A. Statement I is the cause and statement II is its effect B. Statement II is the cause and statement I is its effect C. Both the statements I and II are independent causes D. Both the statements I and II are effects of independent causes</p>

18)	<p>Statements:</p> <p>I. India has surpassed the value of dairy exports this year over all the earlier years due to an increase in demand for quality dairy products in the European market.</p> <p>II. There is an increase in consumption of dairy products in the domestic market during the last two years.</p> <p>A. Statement I is the cause and statement II is its effect B. Statement II is the cause and statement I is its effect C. Both the statements I and II are independent causes D. Both the statements I and II are effects of independent causes</p>
19)	<p>Statements:</p> <p>I. All the schools in the local area had to be kept closed for most part of the week.</p> <p>II. Many parents have withdrawn their children from the local schools.</p> <p>A. Statement I is the cause and statement II is its effect B. Statement II is the cause and statement I is its effect C. Both the statements I and II are independent causes D. Both the statements I and II are effects of independent causes</p>
20)	<p>The question below presents a situation and asks you to make a judgment regarding that particular circumstance. Choose an answer based on given information.</p> <p><u>Question</u></p> <p>The school principal has received complaints from parents about bullying in the schoolyard during recess. He wants to investigate and end this situation as soon as possible, so he has asked the recess aides to watch closely. Which situation should the recess aides report to the principal?</p> <p>A. A girl is sitting glumly on a bench reading a book and not interacting with her peers. B. Four girls are surrounding another girl and seem to have possession of her backpack. C. Two boys are playing a one-on-one game of basketball and are arguing over the last basket scored. D. Three boys are huddled over a handheld video game, which isn't supposed to be on school grounds.</p>

### Questions 21-23

In each question below are given two statements followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusion and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

Give answer:

- (A) If only conclusion I follows
- (B) If only conclusion II follows
- (C) If either I or II follows and
- (D) If neither I nor II follows

21)	<p>Statements: All buns are cakes. All lights are cakes.</p> <p>Conclusions:</p> <ul style="list-style-type: none"><li>I. Some lights are buns.</li><li>II. No light is bun.</li></ul> <ul style="list-style-type: none"><li>A. Only conclusion I follows</li><li>B. Only conclusion II follows</li><li>C. Either I or II follows</li><li>D. Neither I nor II follows</li></ul>
22)	<p>Statements: All mangoes are yellow in colour. No yellow-coloured things are cheap.</p> <p>Conclusions:</p> <ul style="list-style-type: none"><li>I. All mangoes are cheap.</li><li>II. Yellow-coloured mangoes are not cheap.</li></ul> <ul style="list-style-type: none"><li>A. Only conclusion I follows</li><li>B. Only conclusion II follows</li><li>C. Either I or II follows</li><li>D. Neither I nor II follows</li></ul>
23)	<p>Statements: Some doctors are smart people. Some smart people are rich.</p> <p>Conclusions:</p> <ul style="list-style-type: none"><li>I. Some doctors are rich</li><li>II. Some rich people are doctors.</li></ul> <ul style="list-style-type: none"><li>A. Only conclusion I follows</li><li>B. Only conclusion II follows</li><li>C. Either I or II follows</li><li>D. Neither I nor II follows</li></ul>

## Questions 24-26

Five towns-Fulton, Groton, Hudson, Ivy, and Jersey-which are covered by the same newspaper, all have excellent soccer teams. The teams are named the Panthers, the Whippets, the Antelopes, the Kangaroos, and the Gazelles. The sports reporter, who has just started at the newspaper, has to be careful not to get them confused. Here is what she knows:

- The team in Fulton has beaten the Antelopes, Panthers, and Kangaroos.
- The Whippets have beaten the teams in Jersey, Hudson, and Fulton.
- The Antelopes are in Groton.
- The team in Hudson is not the Kangaroos.

24)	Where are the Whippets?  A. Fulton B. Groton C. Hudson D. Ivy
25)	Where are the Panthers?  A. Ivy B. Jersey C. Hudson D. Fulton
26)	What team is in Fulton?  A. Panthers B. Gazelles C. Whippets D. Kangaroos

### Questions 27-30

The number of calls (in millions) from one telecom network to another network is given in the following table. For example, the number of outgoing calls from Gastel to Unreliance is 431 and the number of outgoing calls from Unreliance to Gastel is 763. Assume that there are no calls within the network.

	Gastel	Unreliance	Videa	Bocomo	Thodapone	Dsnl
Gastel		431	64	942	154	888
Unreliance	763		379	613	918	950
Videa	875	563		768	744	418
Bocomo	447	669	159		330	457
Thodapone	163	430	436	80		909
Dsnl	549	67	142	459	106	

27)	The total number of outgoing calls is minimum for:  A. Gastel B. Unreliance C. Dsnl D. Bocomo
28)	If outgoing calls in an indirect measure of subscribers for a given network (lower the outgoing calls more the number of subscribers for that network) then which network has the highest number of subscribers  A. Gastel B. Dsnl C. Videa D. Bocomo
29)	Out of the following, which network has approximately the same number of incoming and outgoing calls?  A. Gastel B. Unreliance C. Videa D. Thodapone
30)	Which network has the highest traffic (both incoming and outgoing put together)  A. Gastel B. Unreliance C. Videa D. Thodapone

## VERBAL ABILITY

### Questions 31-35

Each of the questions given below consists of a word followed by four words with one correct answer. Select the correct word, which is exact opposite in meaning (antonym) to the word.

31)	Ostentation  A. Simplicity B. Miserliness C. Innocence D. Purity
32)	Abet  A. Prevent B. Aid C. Pacify D. Risk
33)	Prudent  A. Reckless B. Injudicious C. Shortsighted D. Inconsiderate
34)	Culpable  A. Irresponsible B. Careless C. Defendable D. Blameless
35)	Juxtaposition  A. Difference B. Opposition C. Separation D. Appropriateness

## **Questions 36-40**

Read the following passage to answer the questions 36-40.

Many great inventions are initially greeted with ridicule and disbelief. The invention of the airplane was no exception. Although many people who heard about the first powered flight on December 17, 1903 were excited and impressed, others reacted with peals of laughter. The idea of flying an aircraft was repulsive to some people. Such people called Wilbur and Orville Wright, the inventors of the first flying machine, impulsive fools. Negative reactions, however, did not stop the Wrights. Impelled by their desire to succeed, they continued their experiments in aviation.

Orville and Wilbur Wright had always had a compelling interest in aeronautics and mechanics. As young boys they earned money by making and selling kites and mechanical toys. Later, they designed a newspaper- folding machine, built a printing press, and operated a bicycle-repair shop. In 1896, when they read about the death of Otto Lilienthal, the brothers' interest in flight grew into a compulsion.

Lilienthal, a pioneer in hand-gliding, had controlled his gliders by shifting his body in the desired direction. This idea was repellent to the Wright brothers, however, and they searched for more efficient methods to control the balance of airborne vehicles. In 1900 and 1901, the Wrights tested numerous gliders and developed control techniques. The brothers' inability to obtain enough lift power for the gliders almost led them to abandon their efforts.

After further study, the Wright Brothers concluded that the published tables of air pressure on curved surfaces must be wrong. They set up a wind tunnel and began a series of experiments with model wings. Because of their efforts, the old tables were repealed in time and replaced by the first reliable figures for air pressure on curved surfaces. This work, in turn, made it possible for the brothers to design a machine that would fly. In 1903 the Wrights built their first airplane, which cost less than \$1,000. They even designed and built their own source of propulsion-a lightweight gasoline engine. When they started the engine on December 17, the airplane pulsated wildly before taking off. The plane managed to stay aloft for 12 seconds, however, and it flew 120 feet.

By 1905, the Wrights had perfected the first airplane that could turn, circle, and remain airborne for half an hour at a time. Others had flown in balloons and hand gliders, but the Wright brothers were the first to build a full-size machine that could fly under its own power. As the contributors of one of the most outstanding engineering achievements in history, the Wright brothers are accurately called the fathers of aviation.

36)	Lilienthal's idea about controlling airborne vehicles was the Wrights.  A. proven wrong by B. opposite to the ideas of C. disliked by D. accepted by
37)	People thought that the Wright brothers had  A. acted without thinking B. been negatively influenced C. been too cautious D. been mistaken
38)	The old tables were and replaced by the first reliable figures for air pressure on curved surfaces.  A. destroyed B. invalidated C. multiplied D. approved
39)	The idea of flying an aircraft was to some people.  A. boring B. distasteful C. exciting D. needless
40)	The Wright's interest in flight grew into a _____.  A. Financial empire B. Paranoia C. Need to act D. Foolish thought

**\*\*\* END OF QUESTION PAPER \*\*\***