

Question Booklet

Candidate's name: _____ <div style="display: flex; justify-content: space-around; width: 100%; font-size: small;"> (First) (Middle) (Surname) </div>
Roll No. : <input style="width: 150px; height: 20px;" type="text"/>

	Section Title	Question Type	No. of Questions	Question Nos.	Total Time *
Part I	English Language	Multiple choice	18	1-18	2 Hours (10.30 a.m. -12.30 p.m.)
Part II	Quantitative Reasoning	Multiple choice	18	19-36	

Please read the following instructions carefully:

1) At the test venue, the instructions given by the Test Administrator and Invigilators must be followed. Violation of instructions will result in disqualification and the candidate will be asked to leave the Examination Hall. Any candidate found guilty of using unfair means of any nature in the Examination Hall shall be liable to be disqualified.

2) Candidates are not allowed to carry any papers, notes, books, log table, calculators or calculating devices, scanning devices, communication devices like cellular phone/pager/docupen, etc. to the Examination Hall.

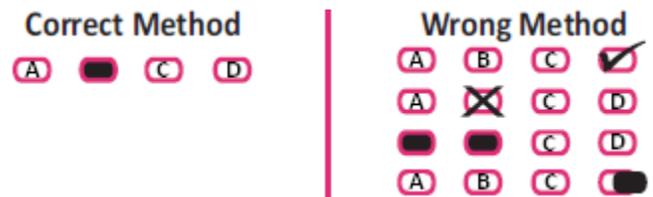
3) Please use ONLY blue/black ball point pen to fill details and to darken the circles on the OMR sheet. **USE OF PENCIL IS PROHIBITED.**

4) Before beginning to answer the paper, write your Roll number in the space provided in the Question Booklet. On the OMR Answer Sheet, please fill in the details and sign at the appropriate place.

5) For each correct answer, candidate will be given 2 marks and zero mark on no attempt. There is a negative marking for each wrong attempt (only for Quantitative Reasoning section). 1 mark will be deducted for each incorrect response.

6) Each objective type question is followed by four responses. Please mark the correct response by darkening the relevant CIRCLE with a BLUE/BLACK ball point pen on the OMR Answer Sheet. Darken ONLY ONE circle for each answer so that the letter inside the circle is not visible.

The CORRECT and the WRONG methods of darkening a circle are given below.



7) Please DO NOT make any stray marks anywhere on the OMR Answer Sheet. DO NOT fold or wrinkle the OMR Answer Sheet. Rough work MUST NOT be done on the Answer Sheet. Use space provided in the Question Booklet for rough work.

8) After completing the test, please hand over the Question Booklet to the Test Invigilator. DO NOT carry the Question Booklet or any part thereof outside the Examination Hall.

Part I – English Language

Direction for Questions 1-9:

Read the following passage and answer the questions that follow:

Located 35 kilometres from the Mughal capital of Agra is one of the finest cities of medieval India, Fatehpur Sikri. A unique architectural experiment, and a World Heritage Site since 1986, Sikri remains frozen in time and space. In its majesty and grandeur, Sikri is perhaps second to none, but it has always lived in the shadows of its world-famous neighbour, the Taj Mahal.

Fatehpur Sikri is connected with the life and times of Emperor Akbar and therefore with a crucial period in Indian history. It is of great historical importance but remains one of the less-understood heritage complexes. Today, common people mainly learn about the history of the site from local tourist guides and folk stories. But information from such sources does not answer the following questions clearly: Why was the city built and abandoned within a span of just 14 years? Who was Jodha Bai? Did the talented Navratnas or “Nine Jewels” really exist? Did the city decline because of shortage of water?

Situated strategically a day’s march from Agra Fort, the town was enclosed with walls to the north and east and protected by a now dry lake on the west. The planning of the city aligned with the contours of a ridge in the Vindhya mountain range. The mosques, imperial palaces and offices, bureaucratic establishments, and nobles’ mansions were located on top of the ridge. The civic population and gardens were located around the official zone below the ridge. Access to the city was controlled by eight identical gates, prominent being the Agra and Ajmer Gates, which restricted movement from public spaces into imperial zones.

According to the Jesuit priest Monserrate, who travelled to India in the 16th century, the imperial complex consisted of four great royal buildings: the king’s palace, the palace of the queens, the princes’ quarters and an ammunition store. The king’s palace, generally known as Daulatkhana (“Abode of Fortune”), was divided into the Daulatkhana-i-Khas (private/restricted space) and the Daulatkhana-i-Aam or the Diwan-i-Aam (Hall of General Audience).

There are several questions about which building was the home of Jodha Bai, the Rajput princess whose name is popularly associated with that of Akbar. Here, it is important to clarify some misconceptions surrounding Jodha Bai. Her very existence is negated by several historians. The historian Irfan Habib argues that a historical character called Jodha Bai did not exist. Akbar

did marry the eldest daughter of Raja Bharmal, the ruler of Amber, but her name is not mentioned anywhere and she was certainly not Jehangir’s mother, he adds. “The myth can be attributed”, Habib believes, “to some guide who may have taken British officers around Fatehpur Sikri arbitrarily referring to various palaces as Todar Mal’s, Birbal’s or Jodha Bai’s dwellings.” Another historian, Shireen Moosvi also clarifies that there is no mention of Jodha in the *Akbarnama* or other Mughal documents of the period.

Like Jodha Bai’s palace, “Birbal’s House” is also erroneously named. A third historian, Rezavi, says it is impossible for Birbal to have occupied the building since no male, not even a prince, was allowed to enter the female quarters. Birbal’s house was one of the earliest palaces to be constructed at Sikri (1571) and has a relatively independent character. It might have been used to house someone holding high esteem at Akbar’s court, probably the queen mother or senior queens. The other ladies-in-waiting were presumably housed in the so-called Meena Bazar, which could have been the minor Haramsara or residence for women. Where did the princes stay? Other historians, including Rizvi and V.J.A. Flynn, have identified the so-called Tansen Baradari, located in front of Lord Curzon’s Dak Bungalow, as Prince Salim’s quarters. Meanwhile, on the basis of its proximity to the Daulatkhana and the royal waterworks, Rezavi has identified the Hakim’s House with the princes’ quarters.

1) The above passage indicates that:

- A) The tourist guides at Fatehpur Sikri are the best sources of information on the names of the buildings there and who occupied those buildings in Mughal times
- B) The names of all the buildings and their uses in Mughal times were recorded in the Akbar Nama
- C) Historians do not agree on the names of all the buildings and their uses in Mughal times
- D) Historians agree on the names of all the buildings and their uses in Mughal times

2) Which of the following statements would the writer of this passage be most likely to agree with?

- A) Fatehpur Sikri is the second most famous historical site in the world
- B) The Fatehpur Sikri complex is possibly more beautiful and interesting than the Taj Mahal
- C) The Taj Mahal is more beautiful than all the buildings in Fatehpur Sikri put together
- D) Fatehpur Sikri is more popular as an international tourist destination than the Taj Mahal

3) What do you think the author is saying about Jodha Bai?

- A) Jodha Bai was the Emperor Akbar's Rajput wife
- B) There is no evidence that Jodha Bai was the Emperor Akbar's only Rajput wife
- C) There is no evidence that Jodha Bai was married to the Emperor Akbar
- D) There is no evidence that the Emperor Akbar had a son called Prince Salim

4) According to the passage, which of the following statements is true?

- A) Eight identical gates allowed people to enter the palaces of Akbar, Jodha Bai and Prince Salim
- B) Eight identical gates allowed people to enter the palaces and official buildings at Fatehpur Sikri
- C) Eight identical gates were meant to restrict people's entry into the palaces of the kings, queens and princes
- D) Eight identical gates were built with the chief purpose of giving symmetry to the Fatehpur Sikri complex

5) From this passage, we can conclude that:

- A) The buildings at Sikri raise some very interesting questions that nobody will ever be able to conclusively answer
- B) The buildings at Sikri raise some very interesting questions to which satisfactory answers have been found
- C) The buildings at Sikri raise some very interesting questions that tourists should not bother themselves with
- D) The buildings at Sikri raise some very interesting questions that nobody has been able to conclusively answer

6) Which of the following words or phrases convey the same meaning as the word "strategically", used in the sentence that starts "Situated strategically a day's march from Agra fort...?"

- A) In an unplanned way
- B) In a comfortable way
- C) In a well-planned way
- D) In a devious way

7) Which of the following words or phrases convey the same meaning as the word "imperial" in the sentence

"Access to the city was controlled by a series of eight identical gates, prominent being the Agra and Ajmer Gates, which restricted movement from public spaces into imperial zones"?

- A) Royal
- B) Extraterrestrial
- C) Nominal
- D) Private

8) Which of the following words or phrases convey the opposite meaning of the word "proximity" used in the sentence

"Meanwhile, on the basis of its proximity to the Daulatkhana and the royal waterworks, Rezavi has identified the Hakim's House with the princes' quarters"?

- A) Impropriety
- B) Closeness
- C) Remoteness
- D) Vicinity

9) How would you write the following sentence in the future tense:

"The historian Irfan Habib argues that a historical character called Jodha Bai did not exist."

- A) The historian Irfan Habib will argue that a historical character called Jodha Bai will not exist.
- B) The historian Irfan Habib argues that a historical character called Jodha Bai does not exist.
- C) The historian Irfan Habib argues that a historical character called Jodha Bai will not exist.
- D) The historian Irfan Habib will argue that a historical character called Jodha Bai did not exist.

Direction for Questions 10-18:

Read the following passage and answer the questions that follow:

The tourism industry is likely to be severely impacted by climate change, which is a change in global or regional climate patterns, attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels. Climate change will also have important consequences for the air transport industry. Both these will come under growing pressure to reduce their carbon footprint (gas emissions calculated in the form of carbon

dioxide). According to a recent report from Cambridge University, the tourism industry accounts for between 4 and 6 per cent of human contributions to carbon emissions, but this is likely to rise to 10 per cent by 2025. The report says that climate change will cause changes in both tourism and travel patterns. Mountain resorts will be threatened by rising temperatures and shorter winters. Coastal tourism will be at risk with rising sea levels and coral reef degradation. An increase of one meter in sea level, for example, would damage up to 60% of resort properties in the West Indies islands, destroy or damage 21 airports and inundate land around 35 ports. The world's coral reefs contribute \$11.5 billion annually to global tourism revenues.

There will be a negative impact on biodiversity and therefore also on ecotourism, which is tourism intended to support conservation efforts and observe wildlife. Parts of Africa could see 40% of the species in national parks become endangered by 2080. In addition to these direct impacts, the tourism industry will suffer indirectly from increased scarcity of clean water, a higher prevalence of disease, and reduced security and higher social unrest in poor countries as a result of climate change. The tourism industry is one of the world's largest, providing livelihoods to more than 255 million people worldwide. The sector is particularly important for some of the world's poorest countries, especially some of the smaller island states.

Tourism is an energy-intensive sector. Carbon-dioxide emissions from long-distance air and sea travel, and hotels are projected to triple by 2035. While construction of new hotels and other tourist facilities will account for around 20% of tourism's climate impact, transport makes up 75%. Reductions in emissions from tourism will depend to a large extent on improvements in efficiency made within the transport sector. On the brighter side, new aircrafts typically offer a 20-30% improvement in fuel efficiency over existing models. Also, the adoption of environment-friendly fuels could lead to further reductions in emission. However, it is possible that these reductions from improvements in fuel efficiency and technological fixes will be offset by the growth in tourism.

A study by Cambridge University researchers concluded that carbon taxes could reduce the impact of carbon-dioxide emissions from aviation and shipping industries without significant financial impact on the world's poorest countries. Another study found that global aviation emissions can be cut immediately by 10% if every existing plane could be replaced with an up-to-date model. The money for this replacement can come from global carbon tax revenues. In the last 30 to 40 years, emissions from planes have grown at 2.5% per year. Part of the reason it is so difficult to curb these emissions is the long lifetime of planes, which are designed to keep going for 30 years. Changing to new, cleaner technology is a relatively slow

process. Research efforts are now being focused on low-cost modifications to planes to help reduce their emissions. These include installing lightweight cabins and seats, and fitting aircraft with small extra wings to improve their aerodynamic performance.

10) According to the passage, climate change is likely to have an adverse impact on:

- A) All summer sports and beach resorts
- B) All mountain resorts, field athletic events and coral reefs
- C) All mountain resorts, beach resorts and coral reefs
- D) All sports tourism and coral reef viewing

11) According to the passage, climate change will put biodiversity and ecotourism at risk because:

- A) A large proportion of the species in African national parks are imported from coastal areas and will not be able to take the dry inland weather
- B) A large proportion of the species in African national parks are going to be extinct because nobody will have the expertise to support their needs
- C) A large proportion of the species in African national parks are going to become endangered, thus reducing the attractiveness of the parks for tourists
- D) A large proportion of the species in African national parks will not be around in two decades because tourists will no longer pay for their upkeep

12) The passage says that the tourism industry substantially affects the environment because of:

- A) Cargo movement on airplanes and ships
- B) Passenger travel by air and sea and construction of new hotels and tourist facilities
- C) Cargo ship activity and construction of new hotels and other tourist facilities
- D) Passenger surface travel and construction of new hotels and other tourist facilities

13) Which of the following does the author of the passage suggest as possible solutions to the problem of aircraft emissions?

- A) Introducing a global carbon tax and using alternative fuels
- B) Using traditional fuels and replacing plane wings with smaller versions
- C) Using alternative fuels and introducing new planes with heavier seats
- D) All the above

14) Which of the following statements would the author of this passage agree most strongly with?

- A) The tourism industry is likely to have an adverse impact on global climate
- B) The tourism industry will both be adversely impacted and have its own adverse impact on global climate
- C) The tourism industry can improve global climate by increasing the number of tourists it serves
- D) The tourism industry can improve global climate by enlarging its carbon footprint

15) Which of the following words or phrases convey the same meaning as the word “highlighted” in the sentence:

“The warning is highlighted in a new report from the University of Cambridge Institute for Sustainability Leadership”?

- A) Ignored
- B) Communicated
- C) Criticized
- D) Emphasized

16) Which of the following words or phrases convey the same meaning as the word “inundate” in the sentence:

“An increase of one metre in sea level, for example, would damage up to 60% of resort properties in the Caribbean, destroy or damage 21 airports and inundate land around 35 ports”?

- A) Flavour
- B) Flood
- C) Flaunt
- D) Floss

17) Which of the following words or phrases convey the opposite meaning of the word “degradation” in the sentence:

“Mountain resorts will be threatened by rising temperatures and shorter winters. Coastal tourism will be at risk with rising sea levels and coral reef degradation”?

- A) Improvement
- B) Pollution
- C) Expansion
- D) Deterioration

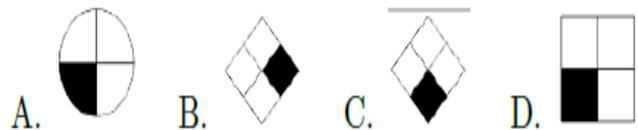
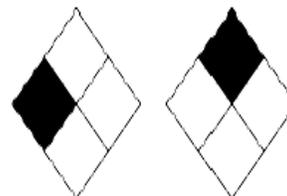
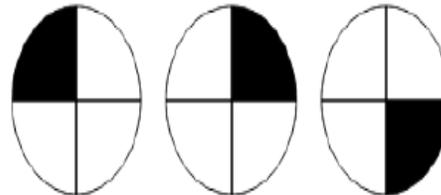
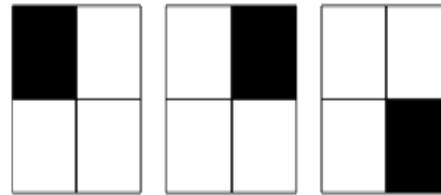
18) How would you rewrite the following sentence in the past tense:

“There will also be a negative impact on biodiversity and therefore also on ecotourism.”

- A) There will have been a negative impact on biodiversity and therefore also on ecotourism.
- B) There was a negative impact on biodiversity and therefore also on ecotourism.
- C) There would be a negative impact on biodiversity and therefore also on ecotourism.
- D) There was going to be a negative impact on biodiversity and therefore also on ecotourism.

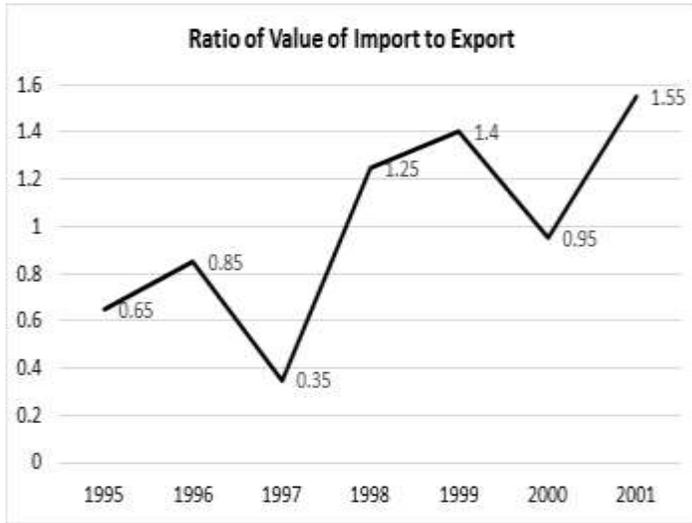
Part II – Quantitative Reasoning

19) Choose one of 4 choices that would complete the following patterns:



- A) A
- B) B
- C) C
- D) D

20) The following chart gives the ratio of the amounts of imports by a country to the amount of exports from that country over the period from 1995 to 2001. Answer the following question based on the following graph.



In how many of the given years were the exports more than imports?

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

21) Air pollution has been increasing in Dedli city. The concentration of a pollutant has been doubling every year and is now approximately 128 ppm (parts per million). What was the concentration of the pollutant four years ago?

- A) 120 ppm
- B) 121 ppm
- C) 8 ppm
- D) 9 ppm

22) A toll gate has 6 lanes. Each lane has 100 vehicles. The vehicles in each lane form a queue. Assume a vehicle occupies half a metre and there is no gap between vehicles. How long is the queue if only one toll gate is working and all vehicles have to join the queue of the working toll booth?

- A) 0.03 km
- B) 600 m
- C) 3 km
- D) 300 m

23) Answer the following question based on the table below:

X=number of years in company	Y=salary
1	5.3
2	8.6
3	11.9
4	15.2

What is the correct relationship between x and y

- A) $y = x + 4.3$
- B) $y = 2x + 3.3$
- C) $y = 3.3x + 2$
- D) There is no relationship between y and x.

24) Mina has to choose to travel by auto or taxi. $\frac{3}{4}$ of the auto fare is same as $\frac{1}{4}$ of the taxi fare. Mark the true statement.

- A) Auto fare is more than the taxi fare.
- B) Taxi fare is more than auto fare.
- C) We cannot compare the fare from this information
- D) The auto and taxi fare are the same.

25) Choose one of 4 choices that would complete the following patterns:



- A. B. C. D.

- A) A
- B) B
- C) C
- D) D

26) To show that a statement is false, it is enough to give one case where it is not true. This is called a counterexample.

Read the following example:

Statement - All human beings are Indian.

This statement is false because we have a counterexample: Chinese are human beings but they are not Indians.

Now answer the question below.

Statement - All animals are insects.

Choose the correct counterexample which shows that the statement is false.

- A) All butterflies are insects
- B) Tomato is not an animal
- C) A dog is an animal
- D) All insects are animals

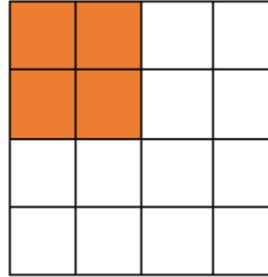
27) The length of the equator of the earth is 40,000 km. A plane flies once round the earth at a height of 1 km above the equator. The total distance which the plane travels is (with an error of less than one km).

- A) 40,001 km
- B) 40,006.28 km
- C) 40,000 km
- D) none of the above

28) The second clock of a hand moves from the position 12 to the position 6 in 30 seconds. An ant starts from position 12 at the same time that the hand is at 12. It travels to position 6 at the same speed as the tip of the hand, but in a straight line from 12 to 6. The ant arrives at position 6 'x' seconds earlier than the tip of the hand. The closest number to 'x' is:

- A) 9
- B) 10
- C) 11
- D) 12

29) A game board has 4×4 squares. A corner square is missing. Count the number of different 2×2 squares. A 2×2 square has been coloured as an illustration.



- A) 8
- B) 9
- C) 1
- D) 16

30) A circular piece of cardboard has a diameter of 20 cm, and weighs 40 gm. After a central circular piece of diameter 10 cm is cut out, what is the weight?

- A) 20 gm
- B) 10 gm
- C) 30 gm
- D) none of the above

31) The sum of price of two different items is Rs 30. The price of the first item is greater than Rs. 8. Which of the following is true:

- A) The second item cost Rs 22
- B) The second items costs less than Rs 22
- C) The second item costs more than Rs 22
- D) The second item costs Rs 8

32) A river is 50 metres wide and 10 metres deep. Assume that the water flows with a speed of 2 metres per second, at all points. How much time will the river take to fill a lake which is square in shape, 1 km x 1 km, and 100 metres deep?

- A) less than one day
- B) between one day and two days
- C) between two and three days
- D) more than three days

33) A fish tank has a large number of fish. 200 are taken out, given a red mark, and put back. They get mixed with the others. When 300 fish are pulled out later, you find that there are 20 red marked fish. Based on this can you guess how many fish are there in the tank, approximately?

- A) 6000
- B) 3000
- C) 12000
- D) 1000

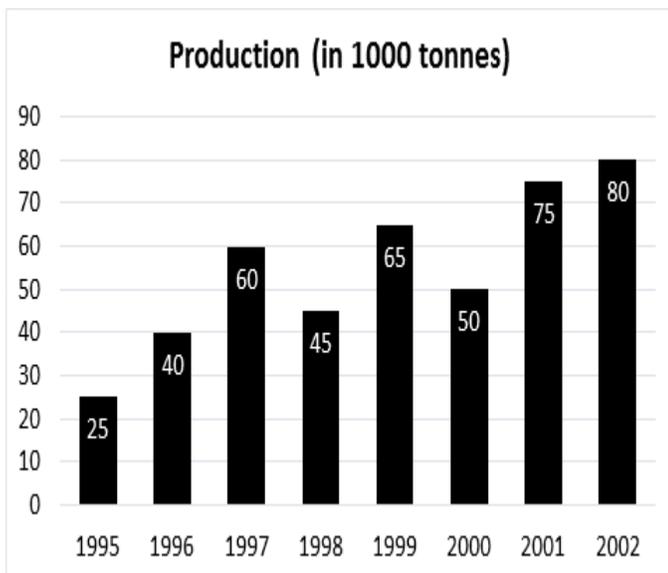
34) Given below is the data of population of fish versus time.

Number of months	1	2	3	4	5	6
Number of fishes	5	15	45	48	48	48

Which of the following is true?

- A) Population of fish is increasing at the rate of 10 per month
- B) Population of fish is constant
- C) Population of fish increases at first and then remains constant
- D) Population of fish always increases

35) The production of fertilizer (in thousands of tonnes) by a company is shown from 1995 to 2002. Answer the following questions based on the graph below.



Calculate the average production of all the years. In how many of the given years was the production of fertilizers more than this average?

- A) 3
- B) 2
- C) 5
- D) 4

36) A large bucket contains 32 litres of water. Because of a small leak, half the water comes out every ten minutes. How long will it take to go from full to only 1 litre of water left? Choose the number closest to the correct answer.

- A) 32 minutes
- B) 10 minutes
- C) 1 hour
- D) 45 minutes

Space for Rough Work:

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