

UNTIL YOU  
SPREAD YOUR WINGS  
YOU WILL HAVE NO IDEA  
HOW FAR YOU CAN FLY

ADMISSIONS 2013

## QUESTION PAPER

TIME	: 90 MINUTES
NUMBER OF QUESTIONS	: 100
SECTIONS	: 04

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Please open the Question Paper only when you are instructed to do so.

Rough work may be done in the margin of the Question Paper only.

Answer Sheet is provided separately.

Please use HB pencil to blacken your choice of answer.

The Question Paper has to be returned with the Answer Sheet attached.

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**This paper carries 4 sections.  
The number of questions in each section are:**

<b>SECTION - 1</b>	<b>GENERAL STUDIES</b>	<b>40 QUESTIONS</b>
<b>SECTION - 2</b>	<b>VERBAL ABILITY</b>	<b>20 QUESTIONS</b>
<b>SECTION - 3</b>	<b>QUANTITATIVE ABILITY</b>	<b>20 QUESTIONS</b>
<b>SECTION - 4</b>	<b>LOGICAL REASONING</b>	<b>20 QUESTIONS</b>

**TIME : 90 MINUTES**

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**SECTION 1**

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**GENERAL STUDIES**

1. Name the Chief Minister who doesn't speak his own state language(s).  
A. Naveen Patnaik      B. K. Siddaramaiah      C. Tarun Kumar Gogoi      D. Prithviraj Chavan
2. The popular mobile phone brand 'Nokia' is from which country?  
A. Japan      B. South Korea      C. Italy      D. Finland
3. The headquarters of the United Nations is  
A. Paris      B. New York      C. Amsterdam      D. London
4. The currency of Indonesia is –  
A. Dinar      B. Ringgit      C. Takka      D. Rupiah
5. Which among the following country is the host of 2018 Commonwealth Games?  
A. Canada      B. England      C. Australia      D. New Zealand
6. When a wave goes from one place to another, it transports  
A. Matter      B. Energy      C. Mass      D. None of these
7. The World's highest mountain is in  
A. India      B. China      C. Nepal      D. Bhutan
8. Which of the following river flows through a 'rift' valley?  
A. Ganga      B. Brahmaputra      C. Narmada      D. Krishna
9. The headquarters of Red Cross is in  
A. Geneva      B. Tegucigalpa      C. Rome      D. Washington D.C.
10. Maastricht treaty led to the formation of  
A. AU      B. SCO      C. SAPTA      D. EU

11. Name the place where Gautam Buddha was born.

- A. Bodh Gaya                      B. Lumbini                      C. Kushinagar                      D. Rajgrih

12. The 1st network that initiated the Internet was?

- A. Vnet                      B. Inet                      C. ARPANET                      D. NSF Net

13. Chanakya was the prime minister of

- A. Chandra Gupta                      B. Chandra Gupta II  
C. Chandra Gupta Maurya                      D. Ashoka

14. Hockey was introduced in the Asian Games in

- A. 1958 in Tokyo                      B. 1962 in Jakarta                      C. 1966 in Bangkok                      D. 1970 in Bangkok

15. The headquarter of R.B.I. is situated at?

- A. Delhi                      B. Kolkata                      C. Mumbai                      D. Chennai

16. Which is the headquarters of Dadra and Nagar Haveli?

- A. Naroli                      B. Kothar                      C. Silvassa                      D. Kabarati

17. Who was the founder of Arya Samaj?

- A. Govinda Ranade                      B. Dayanand Saraswati  
C. Raja Ram Mohan Roy                      D. Swami Vivekananda

18. In whose reign was brought out the Fatawa-i-Alamgiri the greatest digest of Muslim Law in India?

- A. Akbar                      B. Aurangzeb                      C. Mohd. Bin Tughlaq                      D. Babur

19. Name the founder of the whistleblower website Wikileaks.

- A. Julian Assange                      B. Navi Pillay                      C. Phillip Adams                      D. Ben Laurie

20. Where is 'Interview Island' located?

- A. Maldives Islands                      B. Kuril Islands                      C. Andaman Islands                      D. Lakshadweep Islands

31. Who is the president of China?

- A. Hu Jintao                      B. Xi Jinping                      C. Li Keqiang                      D. None of these

32. Who own Australian Grand Slam, 2013, in male category?

- A. Novak Djokovic                      B. Andy Murray                      C. Rafael Nadal                      D. David Ferrer

33. The Cathode, Anode, Ion and Electrode was coined by

- A. Michael Faraday                      B. Einstein                      C. Hovel                      D. Malvelly

34. Who was the president of the Constituent Assembly of India?

- A. B. R. Ambedkar                      B. Jawaharlal Nehru                      C. Rajendra Prasad                      D. Zakir Hussein

35. Which state government is in trouble today on the issue of shifting of tigers?

- A. Orissa                      B. Gujarat                      C. Jharkhand                      D. Maharashtra

36. The Constitution of India was adopted in

- A. 1948                      B. 1949                      C. 1950                      D. 1951

37. As per Economic Survey, 2012-13, GDP growth in India is

- A. 4%                      B. 7%                      C. 6%                      D. 5%

38. What is the unit of Sound?

- A. Newton                      B. Joule                      C. Calorie                      D. Decibel

39. Which Zone wins Deodhar Trophy, 2013?

- A. North Zone                      B. South Zone                      C. West Zone                      D. East Zone

40. The gas usually filled in the electric bulb

- A. Nitrogen                      B. Hydrogen                      C. Oxygen                      D. Carbon dioxide

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## SECTION 2

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### VERBAL ABILITY

**Reading Passage - I**  
**Sleep**

**The nature of sleep and the role it plays in our lives has long fascinated science and been the focus of many studies and a great deal of research.**

- A. The benefit of receiving sleep is essential to our inner well-being. Not enough sleep, however, means that we lack the opportunity to restore ourselves physiologically, emotionally and cognitively. It affects our mood and can result in behaviour and performance problems. When we sleep, our bodies rest but our brains are active. Sleep lays the groundwork for a productive day ahead. Although most people benefit the most from eight hours of sleep each night, this is not always what they manage to achieve. Men get slightly less sleep than women during the week (6.7 hours/night vs. 7.0 hours/night), but have fewer sleep problems, according to recent Sleep in America polls conducted annually by the National Sleep Foundation (NSF).
- B. According to current scientific thought, the human body is pre-programmed for sleep. At nightfall, cells in the retina (a light sensitive membrane connected to the eye by the optic nerve) send a sleep signal to a cluster of nerve cells in the brain. These nerve cells are connected together in the suprachiasmatic nucleus (SCN) and are located in the part of the brain called the hypothalamus which helps regulate body temperature. The SCN is also known as the circadian clock. This biological "clock" relays the message to other parts of the brain which then signals the body that it is time to sleep. For instance, the pineal gland, also located in the hypothalamus, produces a substance called melatonin, which lowers body temperature, and causes drowsiness.
- C. A great deal of the information we now know about sleep and the physiological changes it causes in the brain can be traced back to the invention of the electroencephalogram in the 1950s. This machine allowed scientists to record the feeble electric currents generated on the brain without opening the skull and to depict them graphically onto a strip of paper. Brain-wave function could be examined and scientists could thereby observe sleep from moment to moment. In the 1970s it became possible for scientists to make assumptions about the role that correct breathing plays during sleep with the development of the technology to measure respiration. It was here that science really began to understand the nature of sleep and the role it plays in people's lives.
- D. As well as uncovering the physiological changes occurring during sleep, The New England Journal of Medicine reported that sleep concerns were a public threat as serious as smoking and in the years since, medical researchers have linked sleep disorders with many life-threatening diseases. Even though more than 70 million Americans have a sleeping problem, most cases go undiagnosed and untreated, so the true economic and sociological damage caused by these disorders is unknown although, the economic cost is conservatively estimated to be billions of dollars a year in health-care costs and lost productivity. Breathing problems during sleep represent by far the greatest proportion of sleep disorders and cause the most concern, with studies showing that between 50% and 80% of stroke and heart failure patients have breathing problems during sleep.
- E. Scientific studies have found that children who are identified as snorers or those who have poor sleeping patterns at around the age of four or five, scored lower than average in Intelligent Quotient (IQ) tests, not only during the sleep deprivation period but subsequent to that. There are also suggestions that ongoing sleep deprivation in adults can cause permanent damage.



- F. Teenagers can have peculiar sleep requirements. It has always been known that adolescents spend more time sleeping than adults, but science has only recently isolated the reasons for this. Research now shows that growth hormones are secreted during slow-wave sleep and teenagers do indeed, need more of this kind of sleep than at any other stage in their lives. Chronic lack of sleep among teenagers means that as a group they are more likely to use stimulants and experience negative mood swings. Statistics also indicate that young drivers are responsible for more than one-half of fall-asleep crashes.
- G. However, it is not just young people who pay the price for lack of proper sleep. Workers are robbing themselves of sleep in order to increase productivity in both their social and working lives. In recent years, however, the identification of driver fatigue as the possible cause of 1/3 of all accidents provides some indication of the price we are paying for such a trade-off. Extensive scientific research indicates that chronic tiredness has been the cause of environmental disasters, nuclear mishaps and several well-documented near misses in the air. Scientists are beginning to argue that the lengthening of the working day is harming workers, their families and society. In the long run, productivity will suffer.
- H. As a reaction against this disturbing trend, there has been increased support for regulation of the number of hours worked by employees in demanding jobs, such as doctors, nurses, pilots, bus drivers and truck drivers. Legislation is being drafted to limit work hours, thus forcing companies to become instrumental in changing work cultures to ensure employees are getting enough rest and leisure time in order to avoid chronic tiredness and its devastating consequences.

Choose the correct letter from (A-D) and mark the relevant answer in your answer sheet.

**1. The SCN**

- A. is regulated by the hypothalamus.  
B. is affected by fading light.  
C. is located in the brain.  
D. tells the body it is time for sleep.

**2. Scientists' involvement with sleep research**

- A. Is driven by the potential of monetary gains to be made.  
B. Is a recent trend.  
C. Has been advanced with technological developments.  
D. Has relied on observations and assumptions about sleep being made.

**3. Sleeping disorders are**

- A. Linked to fatal diseases and conditions.  
B. One of the main causes of strokes and heart failure.  
C. Common in babies.  
D. Unusual but can be life-threatening.

Choose the statement (I-X) below that best summarizes each paragraph (A-H) in the Reading Passage. Write your answers in boxes 4-11 on your Answer Sheet.

NOTE: there are more statements than paragraphs so you will not use them all.

**4. Paragraph - A**

A. IX                      B. II                      C. VI                      D. V

**5. Paragraph - B**

A. I                      B. II                      C. VIII                      D. VI

**6. Paragraph - C**

A. III                      B. II                      C. VI                      D. IV

**7. Paragraph D**

A. VI                      B. IX                      C. VII                      D. I

**8. Paragraph - E**

A. VI                      B. III                      C. II                      D. VII

**9. Paragraph - F**

A. III                      B. V                      C. VII                      D. IX

**10. Paragraph - G**

A. III                      B. II                      C. I                      D. VIII

**11. Paragraph - H**

A. V                      B. II                      C. IX                      D. III

### LIST OF SUMMARY STATEMENTS

- I. The negative effects of chronic sleep deprivation have tragic consequences.
- II. There are many advantages to getting sufficient sleep.
- III. Current medical research maintains that sleep is critical to early development.
- IV. Technological advances contributed significantly to sleep research.
- V. Efforts are being made to decrease the incidence of work-related accidents and disasters.
- VI. Sleep problems affect a significant percentage of the population and have far-reaching consequences.
- VII. Lack of the right kind of sleep can affect behaviour.
- VIII. Physiological changes occur to create sleep.
- IX. Sleep has an important function in our daily lives.
- X. The electroencephalogram revolutionized sleep research.

**Directions (Questions 12-14): Choose the word which is most nearly the SAME in meaning as the word or group of words given in capitals used in the passage.**

#### 12. TRAVERSE

- A. Mingle                      B. Frustrate                      C. Taken                      D. Cross

#### 13. PAY

- A. Offer                      B. Settle                      C. Remit                      D. Return

#### 14. PROVIDED

- A. Equipped                      B. Attached                      C. Bestowed                      D. Produced

**DIRECTIONS (Questions 15-16): Choose the word which is most OPPOSITE in meaning of the word given in CAPITALS as used in the passage.**

#### 15. COMMON

- A. Unnecessary                      B. Distinct                      C. Separate                      D. Rare

#### 16. RICH

- A. Weak                      B. Fruitless                      C. Scantly                      D. Impoverished

**Reading Passage-II****Hiuen Tsang : The Traveller**

Since the most ancient times, India has been not only periodically invaded by greedy hordes, but also visited by tradesman and travelers, scholars and sightseers. Some of them have written books. The books of these writers became all the more important because there were not too many of them; and they have served as rich sources for the historians. It is especially in this context that observations provided by the great Chinese writer Hiuen Tsang became very relevant.

Already in the 7th century, Buddhism was a very powerful cultural force among the educated classes of China. It was a common for Chinese pilgrims to come to India, the native land of the Buddha, to pay their respects to the founder of their religion. Perhaps the most famous of them all was this gentle observer who had studied and traveled in China before entering the Indian subcontinent. Being both scholar and sophisticated, he was not given to easy praise. Within India itself he traversed deserts and climbed mountains, stayed in village and lived in capitals, practiced in monasteries and studied in universities, and spent time in royal courts as well.

He went to Mathura and Ayodhya, to Prayag and Pataliputra, to Gaya and Kamarupa. He studied Sanskrit and Pali to delve deeper into Buddhist philosophy and Hindu traditions. Most important of all, he wrote down in detail his many experiences and impressions.

**17. Why the writings of Hiuen Tsang considered as relevant?**

- A. He had spent some time in royal courts
- B. He visited India as a trader and a sightseer
- C. He had travelled to many Asian countries
- D. None of the above

**18. What probably prompted Hiuen Tsang to travel to India?**

- A. To study the influence of Buddhism on Hindus
- B. To spread his religion in India
- C. To undertake pilgrimage and enhance knowledge
- D. To study the powerful cultural force in India

**19. Hiuen Tsang did all of the following during his travel in India except**

- A. Travelled in deserts
- B. Lived in the villages
- C. Followed the schedule in monasteries
- D. Taught in the universities

**20. The writing of Hiuen Tsang appears to be objective because**

- A. He was learned and cultured
- B. He had visited China and could compare it with India
- C. He had great respect for India
- D. He was basically a historian

A. Both A & B

B. Neither A nor B

C. Only A

D. Only B

## SECTION 3

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### QUANTITATIVE ABILITY

1. Sonika deposited Rs.8000 which amounted to Rs.9200 after 3 years at simple interest. Had the interest been 2% more. She would get how much?  
A. Rs.9380                      B. Rs. 9800                      C. Rs.9860                      D. Rs.9680
2. What least value must be assigned to \* so that  $86325*6$  is divisible by 11?  
A. 1                                  B. 2                                  C. 3                                  D. 5
3. 6897 is divisible by:  
A. 11 only                          B. 19 only                          C. Both 11 and 19                      D. Neither 11 nor 19
4. The HCF of two numbers is 8. Which of the following can never be their LCM?  
A. 24                                  B. 48                                  C. 56                                  D. 60
5. If  $\frac{4}{5}$ th of an estate is worth \$16,800, then how much would its  $\frac{3}{7}$ th be?  
A. 9,000                              B. 21,000                              C. 72,000                              D. 90,000
6. Ishan was told to multiply 149 by 34. Instead he multiplied 149 by 43. The difference in his answer is \_\_\_\_\_  
A. 1431                              B. 1341                              C. 1331                              D. 1436
7. In a knock-out Singles Tennis Tournament, 48 players participate. What is the minimum number of matches required to complete the tournament? There is no third place play-off match.  
A. 24                                  B. 36                                  C. 47                                  D. 48
8. The square root of 64009 is \_\_\_\_\_  
A. 257                                  B. 247                                  C. 243                                  D. 253
9. Walking at the rate of 4kmph a man cover certain distance in 2hr 45 min. Running at a speed of 16.5 kmph the man will cover the same distance in.  
A. 12 min                              B. 25 min                              C. 40 min                              D. 60 min

10. 2 trains starting at the same time from 2 stations 200km apart and going in opposite direction cross each other at a distance of 110km from one of the stations. What is the ratio of their speeds?
- A. 11 : 9                      B. 7 : 3                      C. 18 : 4                      D. None of these
11. From 6 men and 4 ladies, a committee of 5 is to be formed. In how many ways can this be done, if the committee is to include at least one lady?
- A. 246                      B. 340                      C. 290                      D. 315
12. How many diagonals can be drawn in a pentagon?
- A. 5                      B. 10                      C. 8                      D. 7
13. In what ratio must rice at Rs 9.30 per Kg be mixed with rice at Rs 10.80 per Kg so that the mixture be worth Rs 10 per Kg?
- A. 6:5                      B. 8:7                      C. 3:7                      D. 6:1
14. A and B together can complete a piece of work in 35 days while A alone can complete the same work in 60 days. B alone will be able to complete the same working in:
- A. 74 Days                      B. 80 Days                      C. 84 Days                      D. 90 Days
15. Two pipes can fill the cistern in 10hr and 12 hr respectively, while the third empty it in 20hr. If all pipes are opened simultaneously, then the cistern will be filled in
- A. 7.5 hr                      B. 8 hr                      C. 8.5 hr                      D. 10 hr
16. Find the remainder when 289 is divided by 89?
- A. 1                      B. 2                      C. 87                      D. 88
17. Yana and Gupta leave points x and y towards y and x respectively simultaneously and travel in the same route. After meeting each other on the way, Yana takes 4 hours to reach her destination, while Gupta takes 9 hours to reach his destination. If the speed of Yana is 48 km/hr, what is the speed of Gupta?
- A. 72 kmph                      B. 32 mph                      C. 20 mph                      D. None of these



18. A student was asked to divide a number by 6 and add 12 to the quotient. He, however first added 12 to the number and then divided it by 6, getting 112 as the answer. The correct answer should have been:
- A. 122                      B. 118                      C. 114                      D. 124
19. I forgot the last digit of a 7-digit telephone number. If I randomly dial the final 3 digits after correctly dialling the first four, then what is the chance of dialling the correct number?
- A. 1/1001                      B. 1/1000                      C. 1/999                      D. 1/990
20. P, Q and R enter into a partnership with capitals in the ratio 3:2:1. After 4 months, P leaves the business and after 4 more months Q also leaves the business and R continues till the end of the year. If R takes 10% of the profit for managing the business, then what part of the profit does R get?
- A. 37%                      B. 36%                      C. 27%                      D. 30%

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**SECTION 4**

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**LOGICAL REASONING**

1. Arrange the words given below in a meaningful sequence.

1. Family      2. Community      3. Member      4. Locality      5. Country  
A. 3,1,2,4,5      B. 3,1,2,5,4      C. 3,1,4,2,5      D. 3,1,4,5,2

2. Arrange the words given below in a meaningful sequence.

1. Poverty      2. Population      3. Death      4. Unemployment      5. Disease  
A. 2,3,4,5,1      B. 3,4,2,5,1      C. 2,4,1,5,3      D. 1,2,3,4,5

3. Optimist is to cheerful as pessimist is to

- A. Gloomy      B. Mean      C. Petty      D. Helpful

4. Yard is to inch as quart is to

- A. Gallon      B. Ounce      C. Milk      D. Liquid

5. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series.

1, 2, 3, 6, 9, 18, ? , 54

- A. 18      B. 27      C. 36      D. 81

6. Choose the correct alternative that will continue the same pattern and replace the question mark in the given series.

22, 24, 28, ? , 52, 84

- A. 36      B. 38      C. 42      D. 46

7. Look at this series: 36, 34, 30, 28, 24 \_\_\_\_ What number should come next?

- A. 20      B. 22      C. 23      D. 26

8. Look carefully for the pattern, and then choose which pair of numbers comes next.

9 ...16... 23... 30... 37... 44... 51

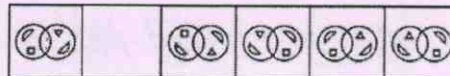
- A. 59...66      B. 56...62      C. 58...66      D. 58...65

9. You are given a combination of alphabets followed by four alternatives (1), (2), (3) and (4). Choose the alternative which is closely resembles the mirror image of the given combination. Choose the alternative which is closely resembles the mirror image of the given combination.

EFFECTIVE  
 (1) EVITCEFFE (2) EVITCEFFE  
 (3) EFFEITCEE (4) EFFEITCEE

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

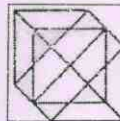
10. Choose the correct mirror image of the given figure (X) from amongst the four alternatives.



- (X)            (1)    (2)    (3)    (4)

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

11. Find the number of triangles in the given figure.



- A. 18                      B. 20                      C. 24                      D. 27

12. The words in the bottom row are related in the same way as the words in the top row. For each item, find the word that completes the bottom row of words.

apples	fruit	supermarket
novel	book	?

- A. bookstore            B. Magazine            C. Vegetable            D. Shopping

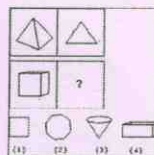
13. Three of the words will be in the same classification, the remaining one will not be. Which word does NOT belong with the others?

- A. Heading            B. Body            C. Letter            D. Closing

14. Which word does NOT belong with the others?

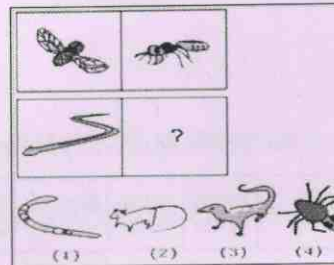
- A. Street            B. Freeway            C. Interstate            D. Expressway

15. Choose the picture that would go in the empty box so that the two bottom pictures are related in the same way as the top two are related.



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

16. Choose the picture that would go in the empty box so that the two bottom pictures are related in the same way as the top two are related.



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

17. In this series, you will be looking at both the letter pattern and the number pattern. Fill the blank in the middle of the series or end of the series.

FAG, GAF, HAI, IAH, \_\_\_\_\_

- A. JAK                      B. HAL                      C. HAK                      D. JAI

18. In this series, you will be looking at both the letter pattern and the number pattern. Fill the blank in the middle of the series or end of the series.

CMM, EOO, GQQ, \_\_\_\_\_, KUU

- A. GRR                      B. GSS                      C. ISS                      D. ITT

19. A four-person crew from Creative Colors is painting Mr. Patel's house. Manish is painting the front of the house. Raju is in the alley behind the house painting the back. Shyam is painting the window frames on the north side, Jenish is on the south. If Manish switches places with Shyam, and Shyam then switches places with Jenish, where is Jenish?

- A. in the alley behind the house                      B. on the north side of the house  
C. in front of the house                      D. on the south side of the house

20. Four friends in the tenth grade were sharing a pizza. They decided that the oldest friend would get the extra piece. Rahul is two months older than Ganesh, who is three months younger than Naman. Krish is one month older than Ganesh. Who should get the extra piece of pizza?

- A. Rahul                      B. Ganesh                      C. Naman                      D. Krish