

Question Booklet Series:  
**A**

**QUESTION BOOKLET FOR WRITTEN EXAMINATION  
FOR ADMISSION THROUGH AIIMS TEST FOR  
MANAGEMENT ADMISSIONS (ATMA)**

Question Booklet Number:

**INSTRUCTIONS**

Roll Number:

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Exam Date:- 12/02/2017  
2 p.m. to 5 p.m.

PID NUMBER :

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Please read the following instructions carefully:

1) In the OMR Answer booklet clearly write your name in the Candidate name field as per ADMIT CARD. Clearly write and circle your Roll Number, Seat Number as per ADMIT CARD. Clearly write and circle your Question Booklet Number, Question Booklet Series as mentioned in the QUESTION BOOKLET.

2) Strictly follow the instructions given by the Centre Supervisor / Room invigilator and those given on the Question Booklet.

**3) Please mark the right responses with a pencil.**

4) Candidates are not allowed to carry any papers, notes, books, calculators, cellular phones, scanning devices, pagers etc. to the Examination Hall. Any candidate found using, or in possession of such unauthorized material, indulging in copying or impersonation or adopting unfair means, is liable to be summarily disqualified and may be subjected to penal action.

5) After finishing the examination, hand over the complete question booklet, OMR Answer Sheet and admit card to the invigilator. DO NOT carry the question booklet or any part of it, outside the examination room. Doing so, is a punishable offence.

6) The test is of objective type with each question carrying 1 mark for correct response. Each question has only one correct response. There is negative marking of 0.25 for every wrong answer.

7) This Question Booklet contains a total of 180 questions and the total time allotted is 3 hours. The written test consists of questions on Verbal ability, Quantitative ability and Analytical ability.

Verbal Skill (Part A) - 1 to 30  
Verbal Skill (Part B) - 31 to 60  
Quantitative Skill (Part A) - 61 to 90  
Quantitative Skill (Part B) - 91 to 120  
Analytical-Skill (Part A) - 121 to 150  
Analytical-Skill (Part B) - 151 to 180

8) Each objective question is followed by four responses. Your task is to choose the correct response and mark your response on the OMR Answer Sheet and NOT on the Question Booklet.

**9) For marking response to a question, completely darken the CIRCLE so that the alphabet inside the CIRCLE is not visible. Darken ONLY ONE CIRCLE for each answer as shown in the example below. The CORRECT and the WRONG method of darkening the CIRCLE on the OMR sheet are given below.**

**Correct Method**



**Wrong Method**



10) In view of the tight time span, do not waste your time on a question, which you find to be difficult. Attempt easier questions first and come back to the difficult questions later during the test.

11) DO NOT make any stray marks anywhere on the OMR answer sheet. DO NOT fold or wrinkle the OMR answer sheet and the Subjective Response Sheets.

12) Rough work MUST NOT be done on the OMR answer sheet. Use your test booklet for this purpose.

## VERBAL SKILL

### PART-A (1 to 30)

**Question 1 to 5 Directions: By understanding the relationship between the first and the second word find the most related word for the third word**

1. Patricide : Father :: Sororicide : ?  
(A) Mother (B) Human (C) Brother (D) Sister
2. Ornithology : Birds :: Entomology : ?  
(A) Insects (B) Worms (C) Mammals (D) Reptiles
3. Carpenter : Furniture :: Sculptor : ?  
(A) Scooter (B) Pot (C) Building (D) Statue
4. Shooting : Bullet :: Archery : ?  
(A) Bow (B) Spear (C) Arrow (D) Rocket
5. Monkey : Chatter :: Elephant : ?  
(A) Neigh (B) Squeak (C) Roar (D) Trumpet

**Question 6 to 10 Directions: Fill in the blank with most appropriate word**

6. Docile person is \_\_\_\_\_  
(A) Hated (B) Lovable (C) Easily managed (D) Sick
7. He looks at everything from a personal point of view  
(A) Egoist (B) Egotist (C) Egomaniac (D) Egocentric
8. \_\_\_\_\_ means the ridiculous and miserable failure.  
(A) Chimera (B) Anomaly (C) Blunder (D) Fiasco

9. Which philosophy is expressed by a sentence, "God is nonexistent!"  
(A) Theism (B) Atheism (C) Agnosticism (D) Reverence
10. Sharpness and bitterness of the speech or temper is known as \_\_\_\_\_.  
(A) Apathy (B) Alacrity (C) Assiduity (D) Acrimony

### Question 11 to 16 Directions: Comprehension

Marie was born in 1867 in Warsaw, Poland, where her father was a Professor of Physics. At an early age, she displayed a brilliant mind and a blithe personality. Her great exuberance for learning prompted her to continue with her studies after high school. She became disgruntled, however, when she learned that the university in Warsaw was closed to women. Determined to receive a higher education, she defiantly left Poland and in 1891 entered the Sorbonne, a French university, where she earned her master's degree and doctorate in physics.

Marie was fortunate to have studied at the Sorbonne with some of the greatest scientists of her day, one of whom was Pierre Curie. Marie and Pierre were married in 1895 and spent many productive years working together in the physics laboratory. A short time after they discovered radium, Pierre was killed by a horse-drawn wagon in 1906. Marie was stunned by this horrible misfortune and endured heartbreaking anguish. Despondently she recalled their close relationship and the joy that they had shared in scientific research. The fact that she had two young daughters to raise by herself greatly increased her distress.

Curie's feeling of desolation finally began to fade when she was asked to succeed her husband as a physics professor at the Sorbonne. She was the first woman to be given a professorship at the world-famous university. In 1911 she received the Nobel Prize in chemistry for isolating radium. Although Marie Curie eventually suffered a fatal illness from her long exposure to radium, she never became disillusioned about her work. Regardless of the consequences, she had dedicated herself to science and to revealing the mysteries of the physical world.

11. Marie had a bright mind and a \_\_\_\_\_ personality.  
(A) Strong (B) lighthearted (C) Humorous (D) Strange

12. When she learned that she could not attend the university in Warsaw, she felt \_\_\_\_\_.

(A) Hopeless (B) Annoyed (C) Depressed (D) Worried

13. Marie \_\_\_\_\_ by leaving Poland and travelling to France to enter the Sorbonne.

(A) Challenged authority (B) Showed intelligence  
(C) Behaved (D) Was distressed

14. \_\_\_\_\_ she remembered their joy together.

(A) Dejectedly (B) Worried (C) Tearfully (D) Happily

15. Her \_\_\_\_\_ began to fade when she returned to the Sorbonne to succeed her husband.

(A) Misfortune (B) Anger (C) Wretchedness (D) Disappointment

16. Even though she became fatally ill from working with radium, Marie Curie was never \_\_\_\_\_.

(A) Troubled (B) Worried (C) Disappointed (D) Sorrowful

**Question 17 to 21 Directions: Fill in the blanks by choosing most appropriate option**

17. "Excuse me. Do you know where the railway station is ?"  
"It is \_\_\_\_\_ the bus terminal."

(A) opposite of (B) opposed to (C) opposite with (D) opposite to

18. "It is not very cold. I don't think we need these woollen sweaters."  
"I don't think so, \_\_\_\_\_."

(A) Anyway (B) neither (C) either (D) too

19. Abhishek was thrilled to be \_\_\_\_\_ such a beautiful and interesting lady.

(A) Introduced (B) introduced at  
(C) introduced with (D) introduced to

20. If you don't understand the text, don't hesitate \_\_\_\_\_

(A) ask a question (B) asking a question  
(C) to ask a question (D) to asking a question

21. The social worker \_\_\_\_\_ the two old sisters who were ill.

(A) called to the house of (B) called on the house of  
(C) called to (D) called on

**Question 22 to 26 Directions: Pick up the most appropriate Antonym for the given word**

22. Enormous

(A) tiny (B) soft (C) average (D) weak

23. Quiescent

(A) active (B) dormant (C) weak (D) unconcerned

24. Relinquish

(A) Possess (B) abdicate (C) renounce (D) deny

25. Exodus  
(A) Influx (B) return (C) arrival (D) restoration

26. Commissioned  
(A) started (B) revoked (C) finished (D) terminated

**Question 27 to 30 Directions: Pick up the word with the closest meaning.**

27. Inured  
(A) hardened (B) softened (C) adulterated (D) flattened

28. Mundane  
(A) worldly (B) global (C) futile (D) spatial

29. Patronize  
(A) oppose (B) support (C) bless (D) organize

30. Proxy  
(A) authorized agent (B) absent  
(C) Substituted (D) Emulated

## VERBAL SKILL

### PART- B (31 to 60)

**Question 31 to 33 Directions: Choose the most appropriate preposition to fill in the blank**

31. I often take walks \_\_\_\_\_ the morning.  
(A) on (B) at (C) by (D) in

32. The college library is open \_\_\_\_\_ nine until four.  
(A) between (B) from (C) for (D) at

33. We must finish this job \_\_\_\_\_ next Monday.  
(A) till (B) until (C) with (D) by

**Question 34 to 36 Directions: Fill in the blank by choosing appropriate option**

34. Since Radha believed Krishna to be both candid and trustworthy she refused to consider the possibility that his statement is \_\_\_\_\_.  
(A) mistaken (B) critical (C) irrelevant (D) insincere

35. We cannot believe him because he never \_\_\_\_\_ the grandiose promises he had made.  
(A) Succeeded to (B) tired of  
(C) delivered on (D) accomplished for

36. The reasoning the newspaper article is so \_\_\_\_\_ that we cannot see how anyone can be deceived by it.  
(A) specious (B) coherent (C) cogent (D) astute

**Question 37 to 43 Directions: Comprehension**

On their visit to school specifically, fire fighters tell the students these things: A smoke detector should be placed on each floor of a home. While sleeping, people are in particular danger of an emergent fire, and there must be a detector outside each sleeping area. A good site for a detector would be a hallway that runs between living spaces and bedrooms.

Because of the dead-air space that might be missed by turbulent hot air bouncing around above a fire, smoke detectors should be installed either on the ceiling at least four inches from the nearest wall, or high on a wall at least four, but no further than twelve, inches from the ceiling.

Detectors should not be mounted near windows, exterior doors, or other places where drafts might direct the smoke away from the unit. Nor should they be placed in kitchens and garages, where cooking and gas fumes are likely to cause false alarms.

37. Which organizational scheme does this list of instructions follow?
- (A) hierarchical order
  - (B) comparison-contrast
  - (C) cause-and-effect
  - (D) chronological order by topic
38. What is the main focus of this passage?
- (A) how fire fighters carry out their responsibilities
  - (B) the proper installation of home smoke detectors
  - (C) the detection of dead-air space on walls and ceilings
  - (D) how smoke detectors prevent fires in homes
39. The passage implies that dead-air space is most likely to be found
- (A) on a ceiling, between four and twelve inches from a wall.
  - (B) close to where a wall meets a ceiling.
  - (C) near an open window.
  - (D) in kitchens and garages.
40. The passage states that, compared with people who do not have smoke detectors, persons who live in homes with smoke detectors have a
- (A) 50% better chance of surviving a fire.
  - (B) 50% better chance of preventing a fire.
  - (C) 75% better chance of detecting a hidden fire.
  - (D) 100% better chance of not being injured in a fire.
41. A smoke detector should NOT be installed near a window because
- (A) outside fumes may trigger a false alarm.
  - (B) a draft may create dead-air space.
  - (C) a draft may pull smoke away from the detector.
  - (D) outside noises may muffle the sound of the detector.

42. The passage indicates that one responsibility of a fire fighter is to
- (A) install smoke detectors in the homes of residents in the community.
  - (B) check homes to see if smoke detectors have been properly installed.
  - (C) develop fire safety programs for community leaders and school teachers.
  - (D) speak to school children about the importance of preventing fires.
43. A smoke detector must always be placed
- (A) outside at least one of the bedrooms on any level of the home.
  - (B) outside all bedrooms in a home.
  - (C) in all hallways of a home.
  - (D) in kitchens where fires are most likely to start.

**Question 44 to 47 Directions: Comprehension**

Charles Darwin was a biologist whose famous theory of evolution is important to philosophy for the effect it has had on ideas relating to the nature of men. After many years of careful study, Darwin attempted to show that higher species came into existence as a result of the gradual transformation of lower species, and that the process of transformation could be explained through the selective effect of the natural environment upon organisms. He concluded that the principles of *natural selection* and *survival of the fittest* govern all life. Darwin's explanation of these principles is that because of the food supply problem, the young of any species compete for survival. Those young that survive to produce the next generation tend to embody favorable natural changes that are passed on by heredity. His major work that contained these theories is *On the Origin of the Species*, written in 1859. Many religious opponents condemned this work.

44. According to the passage, Charles Darwin was which of the following?
- (A) a priest
  - (B) a biologist
  - (C) an animal trainer
  - (D) a politician
45. Which of the following statements supports Darwin's belief about the origin of all species?
- (A) Man is descended from monkeys.
  - (B) All life forms developed slowly over time from lower life forms.
  - (C) Natural forces do not affect life on Earth.
  - (D) All species were individually created.

46. Darwin's explanation that the young of any species compete for food and survival, and those that survive are strong and pass their traits on to their young was called which of the following?
- (A) belief in creationism  
 (B) the catastrophic theory  
 (C) theory of natural selection and survival of the fittest  
 (D) the study of anthropology

47. According to the passage, how was Darwin's book, *On the Origin of the Species*, received?
- (A) Scientists gave their immediate approval of Darwin's book.  
 (B) Religious opponents condemned Darwin's book.  
 (C) The world ignored Darwin's book.  
 (D) Darwin's book became an immediate bestseller.

**Question 48 to 52 Directions: Find the most synonymous words from the options.**

48. CONNOISSEUR

- (A) Lover (B) Interpreter (C) Expert (D) Timid

49. CLANDESTINE

- (A) Public (B) Artistic (C) Secret (D) Violent

50. GROVEL

- (A) Decide (B) Vomit (C) Throw (D) Crawl

51. SUBVERT

- (A) Overthrow (B) Submit (C) Dictate (D) Decide

52. BANAL

- (A) Common (B) Straight (C) Smooth (D) Slippery

**Question 53 to 55 Directions: Find the erroneous construct in the sentence**

53. I believe / that respect / is more preferable than / money.  
 (A) (B) (C) (D)

54. I enjoyed / during my / stay in / Holland.  
 (A) (B) (C) (D)

55. Modern film techniques / are far superior / than that / employed in the past  
 (A) (B) (C) (D)

**Question 56 to 60 Directions: Fill in the blanks by choosing appropriate word(s)**

56. Unlike his calmer, more easygoing colleagues, the senator was \_\_\_\_, ready to quarrel at the slightest provocation.  
 (A) Whimsical (B) irascible (C) gregarious (D) ineffectual

57. Jill was \_\_\_\_ by her employees because she often \_\_\_\_ them for not working hard enough.  
 (A) deified ----- goaded (B) loathed ---- berated  
 (C) disregarded----- eulogized (D) cherished----- decided

58. Deep ideological \_\_\_\_ and internal power struggles \_\_\_\_ the government.  
 (A) similarities..... protracted (B) distortions....accelerated  
 (C) agreements ....stymied (D) divisions .... paralyzed

59. A glue produced by bees to \_\_\_\_\_ their hives appears to contain antibiotic substances.  
 (A) collect (B) design (C) build (D) decorate

60. Next day the newspaper was filled with the \_\_\_\_\_ details of the murder.  
 (A) macabre (B) condign (C) coherent (D) specious

## QUANTITATIVE SKILL

### PART-A (61 to 90)

61. Evaluate:  $(303 \times 303 + 208 \times 208)$   
(A) 180348 (B) 91809 (C) 135073 (D) 43264
62. Which of the following numbers is divisible by 3 ?  
(A) 541326 (B) 5967013 (C) 5967019 (D) 558692
63. Two numbers are in the ratio of 15:11. If their H.C.F. is 12, find the Numbers.  
(A) 180,132 (B) 186,165 (C) 184,139 (D) 133,169
64. Find the value of  $(1-(1/3))(1-(1/4))(1-(1/5))\dots(1-(1/100))$   
(A)  $1/25$  (B)  $1/50$  (C)  $1/15$  (D)  $1/45$
65. A man spends  $2/5$  of his salary on house rent,  $3/10$  of his salary on food and  $1/8$  of his salary on conveyance. if he has Rs.1400 left with him, find his expenditure on food.  
(A) 1000 (B) 2400 (C) 1500 (D) 2000
66. A crate of oranges contains one bruised mango for every forty oranges in the crate. If three out of every four bruised oranges are considerably unsalable and there are 12 unsalable oranges in the crate then how many oranges is there in the crate?  
(A) 640 (B) 1280 (C) 480 (D) 360
67. Rajapur has a population of 88000, which is decreasing at the rate of 1200 per Year. Rampur has a population of 42000, which is increasing at the rate of 800 per year. In how many years will the population of the two villages, is equal?  
(A) 23 (B) 13 (C) 22 (D) 12
68. Two pens and three pencils cost Rs 86. Four Pens and a pencil cost Rs. 112. Find the cost of a pen.  
(A) Rs.20 (B) Rs. 10 (C) Rs.25 (D) Rs. 15
69. What is the square root of 0.0009?  
(A) 0.03 (B) 0.3 (C) 3 (D) 0.003
70. Nine persons went to a hotel for taking their meals 8 of them spent Rs.12 each on their meals and the ninth spent Rs.8 more than the average expenditure of all the nine. What was the total money spent by them?  
(A) 118 (B) 117 (C) 120 (D) 107
71. The average age of a class of 39 students is 15 years. If the age of the teacher be included, then the average increases by 3 months. Find the age of the teacher.  
(A) 20 (B) 25 (C) 35 (D) 30
72. Distance between two stations A and B is 778 km. A train covers the journey from A to B at 84 km per hour and returns back to A with a uniform speed of 56 km per hour. Find the average speed of the train during the whole journey.  
(A) 67.2 (B) 76.2 (C) 66.1 (D) 70
73. If the sum of two numbers is 42 and their product is 437, then find the absolute difference between the numbers.  
(A) 4 (B) 6 (C) 8 (D) 10
74. Fifty is divided into two parts such that the sum of their reciprocals is  $1/12$ . Find the two parts.  
(A) 25, 35 (B) 30, 20 (C) 15, 35 (D) 20, 20
75. The product of the ages of Ankita and Nikita is 240. If twice the age of Nikita is more than Ankita's age by 4 years, what is Nikita's age?  
(A) 21 (B) 12 (C) 15 (D) 20
76. One year ago, the ratio of Siddhi and Anushka's age was 6: 7 respectively. Four years hence, this ratio would become 7: 8. How old is Anushka?  
(A) 56 (B) 36 (C) 63 (D) 44
77. Find the value of  $(2^{1/4}-1)(2^{3/4}+2^{1/2}+2^{1/4}+1)$   
(A) 1 (B) 2 (C) 0 (D) 12
78. If  $3y + x > 2$  and  $x + 2y \leq 3$ , What can be said about the value of y?  
(A)  $y = -1$  (B)  $y > -1$  (C)  $y < -1$  (D)  $y = 1$

79. If the price of an item is decreased by 10% and then increased by 10%, the net effect on the price of the item is,  
 (A) Decrease of 99% (B) No change  
 (C) decrease of 1% (D) An increase of 1%
80. There are 20 balls which are red, blue or green. If 7 balls are green and the sum of red balls and green balls is less than 13, at most how many red balls are there?  
 (A) 4 (B) 5 (C) 6 (D) 7
81. P, Q, R and S go for a picnic. When P stands on a weighing machine, Q also climbs on, and the weight shown was 132 kg. When Q stands, R also climbs on, and the machine shows 130 kg. Similarly the weight of R and S is found as 102 kg and that of Q and S is 116 kg. What is Q weight?  
 (A) 58kg (B) 78 kg (C) 67 kg (D) 44 Kg
82. If the sales tax reduced from  $3\frac{1}{2}\%$  to  $3\frac{1}{3}\%$ , then what difference does it make to a person who purchases an article with market price of Rs. 9000?  
 (A) 42 (B) 28 (C) 15 (D) None
83. Narendra's salary was decreased by 50% and subsequently increased by 50%. How much percent does he lose?  
 (A) 20 (B) 25 (C) 35 (D) 30
84. During one year, the population of town increased by 5%. If the total population is 9975 at the end of the second year, then what was the population size in the beginning of the first year?  
 (A) 1000 (B) 10000 (C) 8500 (D) 9000
85. In how many ways can we distribute 10 identical looking pencils to 4 students so that each student gets at least one pencil?  
 (A) 5040 (B) 210 (C) 84 (D) None of these
86. A father purchases dress for his three daughters. The dresses are of same colour but of different size. The dress is kept in dark room. What is the probability that all the three will not choose their own dress.  
 (A)  $\frac{2}{3}$  (B)  $\frac{1}{3}$  (C)  $\frac{1}{6}$  (D)  $\frac{1}{9}$
87. The times taken by a phone operator to complete a call are 9, 2, 3, 1, 5 minutes respectively. What is the average time per call?  
 (A) 4 minutes (B) 7 minutes (C) 1 minutes (D) 5 minutes
88. A, B and C enter into partnership. A invests 3 times as much as B and B invests two-third of what C invests. At the end of the year, the profit earned is Rs. 6600. What is the share of B?  
 (A) 2400 (B) 6600 (C) 1200 (D) None of these
89. On 8th Nov, 2016 Tuesday falls. What day of the week was it on 8th Dec, 2017?  
 (A) Sunday (B) Thursday (C) Tuesday (D) Friday
90. Sachin invested Rs. 95,000 in a business. After few months, Viju joined him Rs. 57,000. At the end of the year, the total profit was divided between them in ratio 2:1. After how many months did Viju join?  
 (A) 2 (B) 5 (C) 4 (D) 3

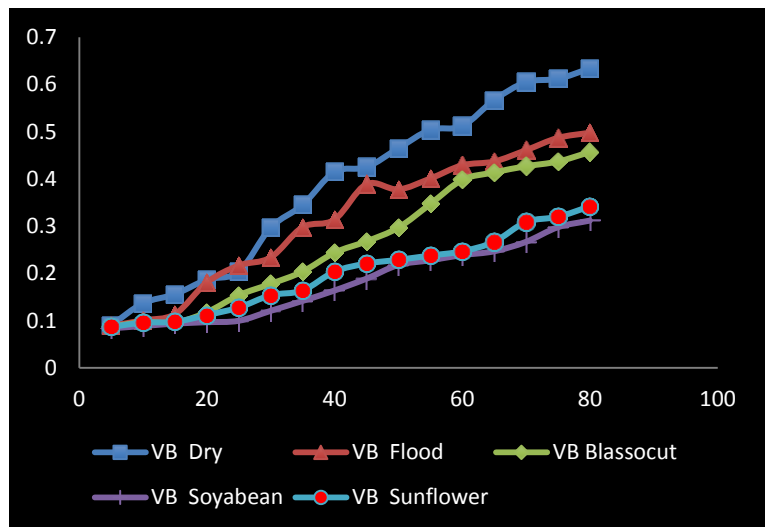
## QUANTITATIVE SKILL

### PART-B (91 to 120)

91. If 20 men can build a wall 66 meters long in 6 days, what length of a similar can be built by 86 men in 8 days?  
 (A) 49m (B) 59m (C) 61m (D) 70m
92. Baban takes 8 hours to do a job. Mahendra takes 10 hours to do the same Job. How long should it take both Baban and Mahendra, working together but independently, to do the same job?  
 (A)  $\frac{40}{11}$  (B)  $\frac{40}{9}$  (C)  $\frac{9}{40}$  (D) 9
93. Two pipes A and B can fill a tank in 36 hours and 46 hours respectively. If both the pipes are opened simultaneously, how much time will be taken to fill the tank?  
 (A) 20 (B) 25 (C) 35 (D) 30



94. A cyclist covers a distance of 750 m in 2 min 30 sec. What is the speed in km/hr of the cyclist?  
 (A) 20 (B) 18 (C) 36 (D) 9
95. A and B are two stations 390 km apart. A train starts from A at 10 a.m. and travels towards B at 65 kmph. Another train starts from B at 11 a.m. and travels towards A at 35 kmph. At what time do they meet?  
 (A) 17/4 (B) 4/17 (C) 17 (D) 390
96. A train 220 m long is running with a speed of 59 kmph.. In what will it pass a man who is running at 7 kmph in the direction opposite to that in which the train is going?  
 (A) 55/3 (B) 12 (C) 18 (D) 66
97. The average salary of 3 workers is 95 Rs. per week. If one earns Rs.115 and second earns Rs.65 how much is the salary of the 3rd worker.  
 (A) 105 (B) 120 (C) 180 (D) 75
98. A man owns 2/3 of the market research beauro business and sells 3/4 of his shares for Rs. 75000. What is the value of Business?  
 (A) 55/3 (B) 150000 (C) 180000 (D) 160000
99. The average length of three tapes is 6800 feet. None of the tapes is less than 6400 feet. What is the greatest possible length of one of the other tapes?  
 (A) 6400 (B) 6800 (C) 7600 (D) 6700
100. If the digits of my present age are reversed then I get the age of my son. If one year ago my age was twice as that of my son. Find my present age.  
 (A) 63 (B) 73 (C) 37 (D) 36
101. Solve:  $x + y = x^2 - y^2 = 23$  find y  
 (A) 11 (B) 12 (C) 24 (D) 36
102. If Rs. 600 amounts to Rs. 683.20 in two years compounded annually, find the rate of interest per annum.  
 (A) 8 (B) 10 (C) 9 (D) 7
103. Simplify :  $(\log 75/16 - 2 \log 5/9 + \log 32/243)$   
 (A) Log 2 (B) Log 4 (C) Log 1 (D) Log 3
104. Find the area of a right-angled triangle whose base is 12 cm and hypotenuse is 13cm.  
 (A) 25 (B) 30 (C) 5 (D) 15
105. A clock is set right at 6 a.m. The clock loses 16 minutes in 24 hours. What will be the true time when the clock indicates 10 p.m. on 4th day?  
 (A) 11 (B) 8 (C) 10 (D) 9
106. A man buys Rs. 25 shares in company which pays 9 % dividend. The money invested is such that it gives 10 % on investment. At what price did he buy the shares?  
 (A) 22.5 (B) 28 (C) 30 (D) 25
107. In how many ways can a cricket eleven be chosen out of a batch of 15 players?  
 (A) 1000 (B) 1665 (C) 225 (D) 1365
108. If the height of a pole is 2meters and the length of its shadow is 2 meters, find the angle of elevation of the sun.  
 (A) 30 (B) 90 (C) 180 (D) 60
- Question 109 to 112 is based on the Following figure.** It represents tool wear (VB) at different cutting speed (rpm)



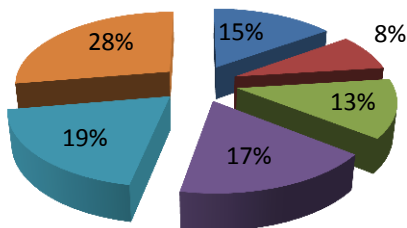
109. Which oil shows lowest tool wear?  
 (A) Sunflower (B) Coconut (C) Blossocut (D) Soyabean
110. Which oil shows lowest tool wear?  
 (A) Dry (B) Coconut (C) Blossocut (D) Soyabean
111. What is approximate difference between minimum and maximum tool wear at 80 rpm.  
 (A) 0.1 (B) 0.2 (C) 0.3 (D) 0.4
112. Conclusion based on the graph  
 (A) Tool wear is higher for dry condition.  
 (B) Tool wear increases as speed increases.  
 (C) Soyabean oil has lowest tool wear.  
 (D) All the above
113. If all the 6 are replaced by 9, then the algebraic sum of all the numbers from 1 to 100 (both inclusive) varies by  
 (A) 330 (B) 350 (C) 300 (D) 100
114. The perimeters of two squares are 40 cm and 32 cm. Find the perimeter of a third square whose area is equal to the difference of the areas of the two squares.?  
 (A) 24 (B) 48 (C) 40 (D) 32

115. How many students of college placed in different branches?  
 (A) 217 (B) 300 (C) 271 (D) 100
116. How many students of college are not placed?  
 (A) 78 (B) 83 (C) 28 (D) 74
117. How many students from computer and Electrical are placed?  
 (A) 78 (B) 96 (C) 32 (D) 74
118. What is the difference between the numbers of placed students from mechanical and civil students?  
 (A) 21 (B) 16 (C) 24 (D) 32
119. A motor boat covers a certain distance downstream in 30 minutes, while it comes back in 45 minutes. If the speed of the stream is 5 kmph what is the speed of the boat in still water?  
 (A) 10 kmph (B) 15 kmph (C) 20 kmph (D) 25kmph
- 120 Find the missing numbers in the series: 0, 2, 5, ?, 17, 28, ?, ? ,  
 (A) 11, 31 (B) 31, 51 (C) 10, 41 (D) 21,40

**Question 115 to 118. The pie-chart provided below gives the distribution of placement record of 300 students in an Engineering College. Study the pie-chart carefully and answer the questions that follow.**

### students placed

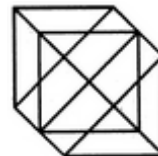
■ Mech ■ Civil ■ Electrical  
 ■ ETC ■ Computer ■ Unemployed



## ANLYTICAL SKILL

### PART-A (121 to 150)

121. Look at this series: 58, 52, 46, 40, 34 . . . What number should come next?  
 (A) 26 (B) 28 (C) 30 (D) 32
- 122 Find the number of triangles in the given figure.



- (A) 18 (B) 20 (C) 24 (D) 27

**123-126 Read the given information carefully and then answer the questions based on them:**

Six members of a family A, B, C, D, E and F are Psychologist, Manager, Advocate, Jeweller, Doctor and Engineer but not in the same order.

- i. Doctor is the grandfather of F and he is a psychologist
- ii. Manager D is married to A
- iii. C, who is a Jeweller, is married to Advocate
- iv. B is the mother of F and E
- v. There are two married couples in the family

123. What is the profession of A?

- (A) Manager (B) Engineer
- (C) Advocate (D) None of these

124. How is A related to E?

- (A) Father (B) Grandfather (C) Grandmother (D) Wife

125. How many male members are there in the family?

- (A) Four (B) Six (C) Cannot be determined (D) None of these

126. Who are the two couples in the family?

- (A) AD and CB (B) AE and DE
- (C) AB and CD (D) AC and BD

127. What is the number of triangles that can be formed whose vertices are the vertices of an octagon but have only one side common with that of octagon?

- (A) 16 (B) 3 (C) 48 (D) 64

128. A bag contains 50 P, 25 P and 10 P coins in the ratio 5: 9: 4, amounting to Rs. 206. Find the number of coins of each type respectively.

- (A) 360, 160, 200 (B) 160, 360, 200
- (C) 200, 360, 160 (D) 200, 160, 300

129. A clock is set right at 8 a.m. The clock gains 10 minutes in 24 hours will be the true time when the clock indicates 1 p.m. on the following day?

- (A) 48 min. past 12 (B) 46 min. past 12
- (C) 45 min. past 12 (D) 47 min. past 12

130. A is B's sister. C is B's mother. D is C's father. E is D's mother. Then, how is A related to D?

- (A) Mother (B) Granddaughter
- (C) Grandmother (D) Grandfather

131. What was the day of the week on, 16th July, 1776?

- (A) Saturday (B) Tuesday
- (C) Sunday (D) Saturday

132. The value of a machine depreciates at the rate of 10% every year. It was purchased 3 years ago. If its present value is Rs. 8748, its purchase price was

- (A) 16000 (B) 12000
- (C) 10000 (D) 8000

133. Insert the missing number. 7, 26, 63, 124, 215, 342, (....)

- (A) 391 (B) 421 (C) 511 (D) 451

134. In a park, nine friends are sitting in a row facing north. M is at the extreme right.

Q is left to R but Right to P.

O is standing right to N and left to P.

Similarly, S is right to R and left to T.

A is at the extreme left.

Who is sitting in between P and M, if O is not there?

- (A) P (B) N (C) S (D) Q

135. Re-entry occurs when a person leaves his or her social system for a period of time and then returns. Which situation below best describes Re-entry ?

- (A) When he is offered a better paying position, Arvind leaves the restaurant. He manages to manage a new restaurant on the other side of town.
- (B) Datta is spending his junior year of college studying abroad in Australia.
- (C) Neeta is readjusting to civilian life after two years of overseas service.
- (D) After several miserable months, Ravi decides that she can no longer share an apartment with his roommate Ajinkya.

**Read the given information carefully and then answer the questions based on them: (136 to 139)**

“Mirchi”, a specialty restaurant, is open for business every Monday through Saturday but is closed Sundays. Lunch is the only meal served on Mondays, Tuesdays and Thursdays. Dinner is the only meal served on Wednesdays, Fridays and Saturdays. The restaurant's floors are polished and its plants are watered only on days that “Mirchi”, is open for business, according to the following schedule:

Plants are watered two days each week, but never on consecutive days and never on the same day are that floors polished.

Floors are polished on Monday and two other days each week, but never on consecutive days and never on the same day that plants are watered.

136. According to the schedule, the restaurant's floors are polished on either

- (A) Tuesday or Wednesday
- (B) Tuesday or Thursday
- (C) Wednesday or Thursday
- (D) Thursday or Saturday

137. According to the schedule, which of the following could be true?

- (A) Floors are polished on Tuesday
- (B) Plants are watered on Wednesday
- (C) Lunch is served on Friday
- (D) Dinner is served on Thursday

138. If dinner is served on a day that plants are watered, which of the following must be true?

- (A) Plants are watered on Tuesday
- (B) Plants are watered on Saturday
- (C) Floors are polished on Thursday
- (D) Floors are polished on Wednesday

139. Assume that floors are polished on consecutive instead of non-consecutive days but that all other scheduling policies are unchanged. For how many of the six days can it be determined both whether plants are watered and whether floors are polished?

- (A) Two
- (B) Three
- (C) Five
- (D) Six

**Directions for Questions 140-143:**

Find the odd one out.

140. 396, 462, 572, 427, 671, 264

- (A) 396
- (B) 671
- (C) 427
- (D) 264

141. 1, 4, 9, 16, 23, 25, 36

- (A) 1
- (B) 16
- (C) 23
- (D) 25

142. 2, 5, 10, 17, 26, 37, 50, 64

- (A) 5
- (B) 17
- (C) 50
- (D) 64

143. 41, 43, 47, 53, 61, 71, 73, 81

- (A) 41
- (B) 53
- (C) 71
- (D) 81

**Directions for Questions 144-148:**

Choose the conclusion that can be drawn from the given statements.

144. All tubes are handles. All balls are handles.
- I. All cups are tubes.
  - II. Some handles are not balls.
- (A) Only conclusion I follows  
(B) Only conclusion II follows  
(C) Either I or II follows  
(D) Neither I nor II follows
145. Jayant is always successful. No fool is always successful.
- I. Jayant is a fool.
  - II. Jayant is not a fool.
- (A) Only conclusion I follows  
(B) Only conclusion II follows  
(C) Either I or II follows  
(D) Neither I nor II follows
146. All Oranges are golden in color. No golden-coloured things are cheap.
- I. All oranges are cheap.
  - II. Golden-colored oranges are not cheap.
- (A) Only conclusion I follows  
(B) Only conclusion II follows  
(C) Either I or II follows  
(D) Both I or II follow
147. All terrorists are culpable. All terrorists are criminals.
- I. Either all criminals are culpable or all culpable are criminals.
  - II. Some culpable persons are criminals.
  - III. Generally criminals are culpable.
  - IV. Crime and culpability go together.

- (A) Only I follows  
(B) Only I and III follow  
(C) Only II follows  
(D) Only II and IV follow

148. All film stars are playback singers. All film directors are film stars.
- I. All film directors are playback singers
  - II. Some film stars are film directors.
- (A) Only conclusion I follows  
(B) Only conclusion II follows  
(C) Either I or II follows  
(D) Both I and II follow

**Directions for Questions 149-153:**

In each question below is given a statement followed by two assumptions numbered I and II. Decide which of the assumptions is implicit in the statement.

149. "You are hereby appointed as a Trainee Engineer with a probation period of six month and your performance will be reviewed at the end of the period for confirmation." - A line in an appointment letter.
- I. The performance of an individual generally is not known at the time of appointment offer.
  - II. Generally an individual tries to prove his worth in the probation period.
- (A) Only assumption I is implicit  
(B) Only assumption II is implicit  
(C) Either I or II is implicit  
(D) Both I and II are implicit

150. "If you trouble me, I will slap you." - A teacher warns her students

- I. With the warning, the students may stop troubling her.
- II. All students are basically disobedient.
  - (A) Only assumption I is implicit
  - (B) Only assumption II is implicit
  - (C) Either I or II is implicit
  - (D) Both I and II are implicit

153. Sangita decided to get the railway reservation in October, for the journey she wants to make in December, to Mumbai.

- I. The railways issues reservations two months in advance.
- II. There are more than one train to Mumbai.
- III. There will be vacancy in the desired class.
  - (A) Only assumption I is implicit
  - (B) Only assumption II is implicit
  - (C) Only assumption I and II are implicit
  - (D) Only assumption II and III are implicit

## ANLYTICAL SKILL

### PART-B (151 to 180)

### Directions for Questions 154-158:

Given below is a set of statements. Examine the statements and state the nature of relationship between them:

151. Apart from the Communication value of mobiles, its education value cannot be ignored.

- I. People buy mobile for communication only.
- II. The educational value of mobile is not appreciated correctly.
  - (A) Only assumption I is implicit
  - (B) Only assumption II is implicit
  - (C) Either I or II is implicit
  - (D) Both I and II are implicit

154. Statements:

- I. All the schools in the area had to be kept closed for most part of the week.
- II. Many parents have withdrawn their children from the local schools.
  - (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

152. The campaign of "Green City, Clean City" started by the Municipal Council did not have any response from the people.

- I. People do not desire to keep their city clean and green
- II. The Municipal Council has failed in its campaign.
  - (A) Only assumption I is implicit
  - (B) Only assumption II is implicit
  - (C) Either I or II is implicit
  - (D) Both I and II are implicit

155. Statements:

- I. There has been a high increase in the incidents of atrocities against women in the city during the past few months.
- II. The police authority has been unable to nab the culprits who are committing crime against women.
  - (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

156. Statements:

- I. It is the aim of the municipal council authority to get the air pollution reduced by 20% in the next two months.
- II. The number of respiratory diseases cases in the city are constantly increasing.

- (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 some common cause

157. Statements:

- I. There is considerable reduction in the number of people affected by water-borne diseases in rural areas during this rainy season.
- II. The government has opened numbers of new civil hospitals in rural areas in the beginning of the year.

- (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

158. Statements:

- I. The police authority has recently caught a group of house breakers.
- II. The citizens group in the locality has started night vigil in the area.

- (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 some common cause

**Directions for Questions 159-160:**

Find the missing term:

159. B2CD, \_\_\_\_\_, BCD4, B5CD, BC6D

- (A) B2C2D  
(B) BC3D  
(C) B2C3D  
(D) BC4D

160. QAR, RAS, SAT, TAU, \_\_\_\_\_

- (A) TAS  
(B) UAT  
(C) UAV  
(D) VAU

161. A bag contains 4 white, 5 red and 6 blue balls. Three balls are drawn at random from the bag. The probability that all of them are red, is:

- (A)  $\frac{2}{91}$   
(B)  $\frac{3}{22}$   
(C)  $\frac{5}{71}$   
(D)  $\frac{7}{51}$

162. If South-East becomes North, North-East becomes West and so on. What will West become?

- (A) North-West  
(B) South-West  
(C) North-East  
(D) South-East

163. Village Q is to the North of the village P. The village R is in the East of Village Q. The village S is to the left of the village P. In which direction is the village S with respect to village R?

- (A) West  
(B) South  
(C) South-West  
(D) North-West

**Directions for Questions 164-165:**

**Find the missing term:**

164. 8 : 28 :: 27 : ?

- A) 65
- B) 50
- C) 64
- D) 74

165. BEGK : ADFJ :: PSVY : ?

- A) OQT
- B) ROUY
- C) ORUX
- D) LSUF

166. A, B, C, D and E play a game of cards. A says to B, "If you give me three cards, you will have as many as E has and if I give you three cards, you will have as many as D has." A and B together have 10 cards more than what D and E together have. If B has two cards more than what C has and the total number of cards be 133, how many cards does B have?

- (A) 35      (B) 26      (C) 33      (D) 25

167. A certain number of horses and an equal number of men are going somewhere. Half of the owners are on their horses' back while the remaining ones are walking along leading their horses. If the number of legs walking on the ground is 70, how many horses are there?

- (A) 14
- (B) 16
- (C) 18
- (D) 20

**Question 168-172 are based on the criteria for selecting team leader for the V-Sphere Software Company.**

The candidate should

- (i) Have a Minimum four years of experience
- (ii) Should have good communication skills..
- (iii) Have scored at least 90% in the interview.
- (iv) Know either Telugu or Hindi.
- (v) be at least 30 years and not more than 40 years as on 01-12-2016

If the candidate satisfies all the above criteria, the candidate may be selected. If the candidate fulfills all the criteria except,

(a) criterion (i), but has a work experience of at least five years as a Testing Engineer, then he/she is referred to Senior Software Engineer.

(b) criterion (v), but has a work experience of at least nine years as a Software Engineer then he/she is referred to Manager.

Based on the above information and data given in each question, you have to decide the course of action. You are not to assume anything. The following information is provided as on 01-12-2016.

If you are not able to decide the course of action because of insufficient data, your answer is 'data is inadequate'. Mark your answer as,

Questions:-

168. Ram has scored 92% in the interview and he is fluent in English. He has six years of work experience as an Associate Engineer and knows Hindi. He was born in 30th March 1984.

- (A) if the candidate is to be rejected.
- (B) if the candidate may be selected.
- (C) if data is inadequate to take any decision.
- (D) if the candidate is to be referred to the Manager.



169. Ashalata was born in 1983 and she knows both Telugu and Hindi. She has three years of work experience as an Associate Engineer. She scored 90% in the interview and speaks English fluently. She also has six years of work experience as a Testing Engineer.

- (A) if the candidate is to be rejected.
- (B) if the candidate may be selected.
- (C) if data is inadequate to take any decision.
- (D) if the candidate is to be referred to the Manager.

170. Yogini scored 90% in the interview and is fluent in English. She knows Telugu and is 34 years old. She has ten years of work experience as a Software Engineer and has six years of work experience as a Testing engineer.

- (A) if the candidate is to be rejected.
- (B) if the candidate may be selected.
- (C) if data is inadequate to take any decision.
- (D) if the candidate is to be referred to the Manager.

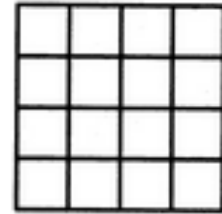
171. Pramod was born on 10th September 1988. He has six years of work experience as an Associate Engineer, and is fluent in English. He knows both Hindi and English and scored 85% in the interview. He has nine years work experience as a Software Engineer.

- (A) if the candidate is to be rejected.
- (B) if the candidate may be selected.
- (C) if data is inadequate to take any decision.
- (D) if the candidate is to be referred to the Manager.

172. Varsha has nine years of work experience as a Software Engineer and knows Telugu. She is fluent in English and has five years of work experience as an Associate Engineer and scored 97% in the interview. Her age is 41 years.

- (A) if the candidate is to be rejected.
- (B) if the candidate may be selected.
- (C) if data is inadequate to take any decision.
- (D) if the candidate is to be referred to the Manager.

173. Count the number of squares in the given figure.



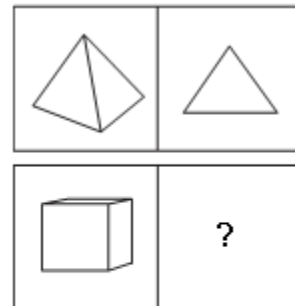
- (A) 32
- (B) 30
- (C) 29
- (D) 28

174. Here are some words translated from an artificial language.

gorblflur means fan belt, pixngorbl means ceiling fan  
arthtusl means tile roof, Which word could mean "ceiling tile"?

- (A) gorbltusl
- (B) flurgorbl
- (C) arthflur
- (D) pixnarth

175. 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

176. Violating an Apartment Lease occurs when a tenant does something banned by the legally binding document that he or she has signed with a landlord. Which situation below is the best example of Violating an Apartment Lease?
- (A) Priyanka has decided to move to another city, so he calls his landlord to tell him that he is not interested in renewing his lease when it expires next month.
- (B) Sharad recently lost her job and, for the last three months, has neglected to pay his landlord the monthly rent they agreed upon in writing when he moved into her apartment eight months ago.
- (C) Uday writes a letter to his landlord that lists numerous complaints about the apartment he has agreed to rent for two years.
- (D) Anna thinks that her landlord is neglecting the building in which she rents an apartment. He calls her attorney to ask for advice.
177. From a group of 7 men and 6 women, five persons are to be selected to form a committee so that at least 3 men are there on the committee. In how many ways can it be done?
- (A) 564    (B) 546    (C) 746    (D) 756
178. The difference between a two-digit number and the number obtained by interchanging the digits is 36. What is the difference between the sum and the difference of the digits of the number if the ratio between the digits of the number is 1 : 2 ?
- (A) 4
- (B) 6
- (C) 8
- (D) 10
179. The largest 4 digit number exactly divisible by 88 is:
- (A) 8888
- (B) 9944
- (C) 9964
- (D) 9988
180. Which one of the following is always associated with 'tree'?
- (A) Roots
- (B) Fruits
- (C) Leaves
- (D) Flowers