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# LIC Assistant Administrative Officers Exam

# Held in 2008

#### Reasoning Ability

- 1. If in a certain code 'men and women have come forward to support' is coded as 'offer have forward men support women to and come'. Then the coded form 'enforced is to the legislation government need state going' represents which of the following?
  - (1) state government is going to need the enforced legislation
  - (2) the enforced legislation is going to need state govern-
  - (3) the state government is going to need enforced legislation
  - (4) the state government going to need is enforced legislation
  - (5) None of these
- 2. How would the word 'VOCALIST' appear if it is written in the reverser order of its letters in numeric form by substituting 1 by 8, 0 by 1, L by 3, T by 2, V by 5, S by 7, A by 9 and C by 2?
  - (1) 51293872 (2) 51298372
  - (3) 27839215 (4) **27893215**
  - (5) None of these
- 3. In the certain code TREAD is written as '7% # 94' and PREY is written as '\$% #8'. How is ARTERY written in that code?
  - (1) 9#7%#8 (2) 9#%7#8
  - (3) 9%7#%8 (4) 9%#7%8
  - (5) None of these
- 4. Among A,B,P,Q and S, B is immediate next taller than the shortest and Q is taller than P. Which of the following statements (s) is (are) necessary to decide the tallest among them? (A) P is not as tall as S.
  - (B) A is third below Q in height
  - (C) P is second in height above A
  - (1) Only (A) or (B)
  - (2) Only (B) or (C)
  - (3) Only (A) or (C)
  - (4) (A) or (B) or (C)
  - (5) Only (A)

5. If a meaningful word can be formed from APSG, by using each letter only once, then the third letter of that word is your answer. If more than one such word can be formed, your answer is 'Y' and if no such word is formed then answer is 'z'.

(2) Y

(3) P

(4) G

(5)S

- 6. In a class, among the passed students Neeta is 22nd from the top and Kalyan, who is 5 ranks below Neeta is 34th from the bottom. All the students from the class have appeared for the exam. If the ratio of the students who passed in the exam to those who failed is 4:1 in that class, how many students are there in the class?
  - (1) Data inadequate

(2)60

(3) 75

(4) 90

(5) None of these

- 7. If in a certain code, 'O' is written as 'E', 'A', as 'C', 'M' as 'I', 'S' as 'O', 'N' as 'P', 'E' as 'M', 'I' as 'A', 'P' as 'N' and 'C' as 'S', then how will 'COMPANIES' be written in that code?
  - (1) SEIACPAMO
  - (2) SMINCPAMO
  - (3) SEINCPAMO
  - (4) SEINCPMIO
  - (5) None of these
- 8. If a meaningful word beginning with B can be formed from 'HACEB', then the fourth letter of that word is your answer. If no such word can be formed then your answer is '5' i.e, 'None of these'.
  - (1) A

(2) C

(3) E

(4) H

- (5) None of these
- 9. In a certain code 'what else can you do for me, Mr. Ajay' is written as 'You Mr. what can Ajay else do me for'. How will anyone else who can do such favour to me' be written in that code?

- (1) can to who anyone me else do favour such
- (2) can favour anyone who me else do to such
- (3) can to anyone who me else do such favour
- (4) can to anyone who me do else favour such
- (5) None of these
- 10. B is the husband of P. Q is the only grandson of E, who is wife of D and mother-in-law of P. How is B related to D?
  - (1) Cousin
- (2) Son-in-law
- (3) Son
- (4) Nephew
- (5) None of these

Directions (11-15): Study the following elements (letters, digits and symbols sequence) to answer the questions given below:

AB7CD9ZY \* P2M © KS3 15 NTQ

(Note: 'A' is to the left of 'B' and '@' is to right of T')

11. If each symbol of the above sequence is replaced with letter and each digit is replaced with new symbol, then how many letters will be there in the sequence?

(1) 16

(2) 17

(3) 4

(4) 12

(5) None of these

12. How many such digits are there in the sequence each of which is immediately preceded as well as followed by letters?

(1) None

(2) One

(3) Two

(4) Three

(5) None of these

13. Which of the following letters is exactly midway between only letters falling between 'C' and '5'?

(1) Y

(2) K

(3) P

(4) M

- (5) None of these
- 14. If each symbol of the above sequence is replaced with the digits from '1' to '9' which are not there in the sequence, then what

will be the sum of all digits? [Each symbol should be replaced with different digit].

- (1) 19
- (2)45
- (3)55
- (4)60
- (5) None of these
- 15. If the first element from the left interchanges place with the tenth element from the left, similarly second with ninth, third with eighth, fourth with seventh and so on, then which of the following will be seventh to the left of eighth element from the right?
  - (1)9
- (2)7
- (3) D
- (4) C
- (5) None of these

Directions (16-20): Seven friends A, B, C, D, E, F and G applied for three Banks P, Q and R. Out of these at least two have applied for each Bank. There is only one girl who has applied only for one Bank. Out of seven friends three were select one for one Bank, out of these was only one girl. B is sister of G and both have applied for the same Bank but not for q. A applied for the Bank R only with E who is a girl. F applied for the Bank P but he was not selected. C who is the wife of D, has been selected.

- 16. Which of the following combination represents girls?
  - (1) B, C, E (2) B, C, G
  - (3) C, E, G

- (4) Cannot be determined
- (5) None of these
- 17. For which bank, three persons applied?
  - (1) R
- (2) P or Q
- (3) Q or R
- (4) P
- (5) Cannot be determined
- 18. Which of the following combinations of boys and Bank is correct?
  - (1) G Q
  - (2) C Q
  - (3) D R
- (4) E R
- (5) A R
- 19. Which of the following combinations of friends, represents for the Bank P?
  - (1) Only B and F
  - (2) Only Fand G
  - (3) Only B, F and G
  - (4) Only B, F and C
  - (5) None of these

- 20. Finally which of the following were selected?
  - (1) A, C, F
- (2) A, C, G

(5) None of these

(3) B, C, F (4) B, C, G

Directions (21-25): In each of the questions below there are three statements followed by three conclusions numbered I, II and III. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements.

#### 21. Statements:

All dogs are birds. Some birds are trees.

No house is tree.

#### Conclusions:

- Some houses are dogs.
- II. Some birds are dogs.
- III. Some trees are dogs.
  - (1) Only I follows
  - (2) Only III follows
  - (3) Only II follows
  - (4) Only II and III follow
  - (5) None of these

#### 22. Statements:

All goats are tigers.

Some tigers are horses. All horses are jackals.

#### Conclusions:

- I. Some jackals are tigers.
- II. Some jackals are goats.
- III. Some horses are goats.
  - (1) None follows
  - (2) Only I follows
  - (3) Only I and II follow
  - (4) Only II and III follow
  - (5) All follow

#### 23. Statements:

Some pens are tables. All tables are inks.

Some inks are apples.

# Conclusions:

- I. Some apples are pens.
- II. Some apples are tables.
- III. Some inks are pens.
  - (1) None follows
  - (2) Only I follows
  - (3) Only II follows
  - (4) Only III follows
  - (5) None of these

#### 24. Statements:

All fruits are vegetables. All pens are vegetables. All vegetables are rains.

#### Conclusions:

- I. All fruits are rains.
- II. All pens are rains.
- III. Some rains are vegetables.
  - (1) None follows
  - (2) Only I and II follow
  - (3) Only II and III follow
  - (4) Only I and III follow
  - (5) All follow

#### 25. Statements:

Some flowers are skies.

Some skies are rooms.

Some rooms are windows.

#### Conclusions:

- I. Some windows are skies.
- II. Some rooms are flowers.
- III. No sky is window.
  - (1) Only I follows
  - (2) Only either I or II follows
  - (3) Only either II or III follows
  - (4) Only either I or III follows
  - (5) None of these

Directions (26-30): In the following questions, the symbols @, \$ and ★ are used as illustrated below:

'@AB' means 'A is not greater than B'.

'AB@' means 'A is not smaller than B

'AB\$' means 'A is neither greater than nor smaller than B'

'★AB' means 'A is neither greater than nor equal to B'

'AB★' means 'A is neither smaller than nor equal to B'

Now, in each of the following questions, find out which of the two Conclusions I and II is/are definitely

Give answer (1) if only Conclusion I is true

Give answer (2) if only Conclusion II is true

Give answer (3) if either Conclusion I or II is true

Give answer (4) if neither Conclusion I nor II is true

Give answer (5) if both Conclusions I and II are true

#### 26. Statements:

★LU, UG★, GS@

#### Conclusions:

I. LS★

II. ★GL

#### 27. Statements:

@AU, UL\$, JL★

Conclusions: I. JA★

II. JU★

#### 28. Statements:

@CS, ★SD, DM★

#### Conclusions:

I. DC★

II. SM★

#### 29. Statements:

**★YG, GH@, HRS** 

#### Conclusions:

I. RGS

II. ★RG

#### 30. Statements:

PQ@, DP★, SD\$

#### Conclusions:

I. SPS

II. SP★

Directions (31-35): Below each question are given two statements (I) and (II). These statements may be either independent causes or may be effects of independent causes or a common cause. One of these statement may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements and Give Answer—

- (1) if statement (I) is the cause and statement (II) is its effect.
- (2) if statement (II) is the cause and statement (I) is its effect.
- (3) if both the statements (I) and (II) are independent causes.
- (4) if both the statements (I) and (II) are effects of independent causes.
- (5) if both the statements (I) and (II) are effects of some common cause.
- 31. (I) The university authority has instructed all the colleges under its jurisdiction to ban use of all phones inside to college premises.
  - (II) Majority of the teachers of the colleges signed a joint petition to the university complaining the disturbances caused by cell phone ringtones inside the classrooms.
- 32. (I) Majority of the people residing in the locality have decided to protest against the municipality authority's decision to allow construction of a shopping mall in the locality.
  - (II) Many shopping malls have been opened all over the city in the recent time.
- **33.** (I) The prices of petrol and diesel in the domestic market have remained unchanged for the past few months.

- (II) The crude oil prices in the international market have gone up substantially in the last few months.
- **34.** (I) The meteorological department has issued a statement mentioning deficient rainfall during monsoon in many parts of the country.
  - (II) The Government has lowered the revised estimated GDP growth from the level of earlier estimates.
- **35.** (I) The Government has decided to give tax benefits for small savings for investments and benefit accruals. However all withdrawals of such savings are to be taxed.
  - (II) People have been investing more in small savings than in equity market to avail maximum tax benefits.

Directions (36-40): Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and-

Give answer (1) if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.

Give answer (2) if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.

Give answer (3) if the data either in Statement I alone or in Statement II alone are sufficient to answer the question.

**Give answer (4)** if the data in both the Statements I and II are not sufficient to answer the question.

**Give answer (5)** if the data in both the Statements I and II together are necessary to answer the question.

- **36.** How many sisters does P have ?
  - I. T and V are only sisters of D.
- II. D is brother of P.
- **37.** How is 'over' written in a code language?
  - 'Over and again' is written as 'Ka ja ha' in that code language.
- II. 'Come and go' is written as 'ja pa na' in that code language.

- 38. Who is to the immediate right of Mohan when Mohan, Salil, Bhushan, Suresh and Jayesh are sitting around a circle facing at the centre?
  - I. Salil is third to the left of Mohan.
- II. Bhushan is between Salil and Jayesh.
- 39. How is N related to K?
  - I. N's brother is married to D.
- II. D's sister is married to K.
- **40.** Who among M, T, K, J and R is the shortest but one?
  - I. T is taller than J and R.
- II. K is shorter than R and M.

Directions (41-45): In making decisions about important questions, it is desirable to be able to distinguish between 'strong' arguments and 'weak' arguments. 'Strong' arguments are those which are both important and directly related to the question. 'Weak' arguments are those which are of minor importance and also may not be directly related to the question or may be related to a trivial aspect of the question.

Instructions: In each of the following a question is followed by two arguments numbered I and II. You have to decide which argument is strong and which argument is weak.

Give answer (1) if only argument I is strong.

Give answer (2) if only argument II is strong.

**Give answer (3)** if either argument I or II is strong.

Give answer (4) if neither argument I nor II is strong.

**Give answer (5)** if both the arguments I and II are strong.

**41. Statement:** Should the existing labour laws be changed in the favour of owners?

#### Arguments

- I. Yes, because the existing labour laws give much more protection to employees than required and thus production is reduced.
- II. No, because owners would exploit employees as before when there were no labour laws
- **42. Statement :** Should India acquire/manufacture the latest nuclear weapons?

#### Arguments

- Yes, the enemies of India are improving their weapons continuously.
- II. No, it will be against our policy of maintaining world peace.
- **43. Statement :** Should animal be killed in the name of laboratory experiment?

#### Arguments

- I. Yes, they are available in abundance.
- II. No, we have been supporting non-violence on every step of our lives.
- **44. Statement:** Should the prestigious people be met with special treatment by law who have committed crime unknowingly?

#### Arguments

- Yes, because the prestigious people do not commit crime intentionally.
- No, it is our policy that everybody is equal before the law.
- **45. Statement :** Should mutual funds be brought under stricter Government control?

#### Arguments:

- Yes, that is one of the ways to protect the interest of the investors.
- II. No. Stricter Government controls are likey to be counterproductive.
- **46.** Which of the following is related to 'Melody' in the same of way as 'Delicious' is related to 'Taste'?
  - (1) Memory
- (2) Highness
- (3) Tongue
- (4) Speak
- (5) Voice
- 47. A trader in order to code the prices of article used the letters of PSICHOLAZY in the form of '0 to 9' respectively. Which of the following code stands for Rs.
  - 875.50 ?
  - (1) AIL.HP
- (2) AIL HS (4) ZCA.OP
- (3) ZYA.HO
- (5) None of these
- **48.** In the following letter series which letter is third from the last?
  - ABCDEFGHIJKLMNO PQRSTUVWX/YZ
  - (1) Q
- (2) X
- (3) K
- (4) S
- (5) None of these

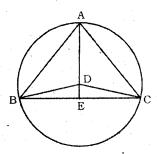
- **49.** What should come in the place of question mark (?) in the following letter sequence?

  AZB, CYD, EXF, ?, IVJ, KUL
  - (1) FYH
- (2) GWG
- (3) HWH
- (4) GUF
- (5) None of these
- **50.** Find the two letters in the word EXTRA which have as many letters between them in the word as in the alphabet. If these two letters are arranged in alphabetical order which letter will come second?
  - (1) E
- (2) X
- (3) T
- (4) R
- (5) A

# Numerical Ability

- 51. When a two-digit odd number is divided by a two digit even number, the quotient is 0.625. If the odd number is 5 less than the even number, then which of the following will definitely be the ratio of odd and even numbers respectively?
  - (1) 5 : 8
- (2) 8 : 5
- (3) 6:9
- (4) Cannot be determined
- (5) None of these
- **52.** A shopkeeper bought three varieties A, B and C of rice in different amounts at the rates of Rs. 34.50, Rs. 28.60 and Rs. 32.40 per kg respectively. In which of the following transactions he will gain maximum?
  - (1) He bought 20 kg of rice of varieties A and C each and sold at Rs. 38 and Rs. 36 per kg respectively
  - (2) He bought 30kg of rice of variety A and sold at Rs. 37 per kg and he bought 40 kg of variety B and sold at Rs. 33 per kg.
  - (3) He bought 20 kg of rice of variety B and sold at Rs. 40 per kg and he bought 40 kg of variety C and sold at Rs. 38 per kg.
  - (4) He bought 25 kg of rice of variety C and sold at Rs. 42 per kg and he bought 30 kg of variety A and sold at Rs. 38 per kg.

- (5) He bought 40 kg of rice of variety B and sold at Rs. 37 per kg and he bought 20 kg of variety A and sold at Rs. 40 per kg.
- ber is forty per cent of another number. Which of the following statements is true about these numbers?
  - (1) The second number is 2.4 times the first number
  - (2) The first number is 2.4 times the second number
  - (3) The first number is forty per cent of the second number
  - (4) The first number is sixty per cent less than the first number.
  - (5) None of these
- 54. The area of a square of side 8 cm is equal to a rectangle. Which of the following statement/s is/are definitely true about the rectangle?
  - (1) The length of rectangle is 16 times its breadth
  - (2) The length of rectangle is 32 times its breadth
  - (3) The breadth of rectangle is
    - $\frac{1}{6}$  of its length
  - (4) The breadth of rectangle is
    - $\frac{1}{0}$  of its length
  - (5) None of these
- **55.** In the following figure, ABC is an equilateral triangle which is inscribed inside a circle and whose radius is r. Which of the following is the area of the triangle?



(1) 
$$(r - DE)^{\frac{1}{2}} (r + DE)^2$$

(2) 
$$(r - DE)^2 (r + DE)^2$$

(3) 
$$(r - DE)^{\frac{1}{2}} (r + DE)^{\frac{3}{2}}$$

(4) 
$$(r + DE)^{\frac{1}{2}} (r - DE)^{\frac{3}{2}}$$

(5) None of these

- **56.** Abhijit invested in three schemes A, B and C the amounts in the ratio of 2:3:4 respectively. If the schemes offered interest @ 20 p.c.p.a. 16 p.c.p.a. and 15 p.c.p.a. respectively, what will be the respective ratio of the amounts after one year?
  - (1) 10:8:5

(2) 12:14:15

- (3) 12:15:22
- (4) Cannot be determined
- (5) None of these
- 57. 3 Girls and 4 boys are to be seated in a row on 7 chairs in such a way that all the three girls always sit together. In how many different ways can it be done?
  - (1)720

(2)576

- (3) 144
- (4) 480
- (5) None of these
- 58. In how many different ways can the letters of the word DRASTIC be arranged in such a way that the vowels always come together?
  - (1)720

(2)360

- (3) 1440
- (4)540(5) None of these
- 59. Certain number of pieces of an article are to be packed in boxes, such that each box contains 145 pieces. If after packing them in 32 boxes 25 pieces are left out, what was the number of pieces to be packed?
  - (1) 4566

(2)4655

- (3)4465
  - (4)4640
- (5) None of these
- 60. Which of the following set of fractions is in ascending order?

$$(1) \ \frac{13}{15}, \frac{11}{13}, \frac{7}{8}, \frac{8}{9}$$

$$(2) \ \frac{11}{13}, \frac{13}{15}, \frac{7}{8}, \frac{8}{9}$$

$$(3) \frac{8}{9}, \frac{7}{8}, \frac{13}{15}, \frac{11}{13}$$

$$(4) \ \frac{7}{8}, \frac{8}{9}, \frac{11}{13}, \frac{13}{15}$$

(5) None of these

Directions (61-65): In each of the following questions a number series is given. After the series a number is given followed by (a), (b) (c), (d) and (e). You have to complete the series starting with the number given, following the sequence of the original series and answer the questions that follow the series.

**61.** 5 6 16 57 244 1245 2 (a) (b) (c) (d) What will come in place of (d)? (1)46(2)39

(3) 156

(4) 172

- (5) None of these
- **62.** 3 5 9 17 33 (a) (b) (c) (d)

What will come in place of (d)?

(1)95

(2)51

(e)

- \_ .CO(4):49 (3) 99
- (5) None of these

63.47 = 4 2 5 9 2 20 52.5

(a) (b) (c) (d) What will come in place of (c)?

(1) 4.5

(2) 2

(3)6

(4)/7

- (5) None of these
- 10 32 111 4602315 (a) (b) (c) (d) (e)

What will come in place of (b)?

 $(1)^{29}$ (3)26 (2) 30

- (4).28(5) None of these
- **65.** 5 - 8 6 10 ⊅ 7 (a) (b) (c) (d) What will come in place of (c)?

(1) 14

(2) 16

- (3)9
- (4) 11
- (5) None of these

Directions (66-70): In each of the following questions, a question and three statements I, II and III are given. You have to decide whether the data given in the statements are sufficient to answer the question or not.

- 66. How much profit did the company earn in the year 2002?
  - I. The company earned 40% more profit in the year 2003 than that in the year 2001.
- II. The company earned a total profit of Rs. 20 crores in the years 2001 and 2002 taken together.
- III. In the year 2003, the company earned 80 per cent profit of that in 2002.
  - (1) Any two of I, II and II are suf-

- (2) Either I and II or II and III are sufficient
- (3) I and II or III are sufficient
- (4) All I, II and III are necessary to answer the question
- 67. How many students secured at least 60 per cent marks in Mathematics in a class of 240 students?
- 1. 20 per cent of the students in the class secured 80 per cent and above marks in Mathematics.
- II. 80 students have secured more than 50 per cent but less than 60 per cent marks in Mathemat-
- HI. The number of students who secured marks between 60 and 79 per cent was equal to the number of students who secured less than 50 per cent marks in Mathernatics.
  - (1) All I, II and III are necessary to answer the question
  - (2) Only I and III are sufficient
  - (3) Only II and III are sufficient
  - (4) Only I and II are sufficient
  - (5) The question cannot be answered even with all I, II and
- 68. In an institute employing managers, observers and assistants, what is the monthly salary of an assistant?
  - I. Each observer gets Rs. 12000 per month more than an assistant.
- II. An observer and an assistant together get Rs. 32000 per month.
- III. The total salary per month of a manager and an observer is Rs. 57000.
  - (1) Either I or II and III are sufficient
  - (2) Only I and II are sufficient
  - (3) Any two of I, II and III are sufficient
  - (4) All I, II and III are necessary to answer the question
  - (5) The question cannot be answered even with all I, II and
- 69. What is the circumference of semi-circle in cm?
- I. The area of semi-circle is half of the area of parallelogram.
- II. The length of parallelogram is 1.5 times the radius of the semicircle

- III. The difference between the length and breadth of parallelogram is 8 cm.
  - (1) Only II and III are sufficient
  - (2) Only I and III are sufficient
  - (3) Only I and II are sufficient
  - (4) All I, II and III are necessary to answer the question
  - (5) The question cannot be answered even with all I, II and
- 70. In a partnership business of A, B and C what profit did B get at the end of 2 years?

- I. A and B started the business by investing in ratio 3:5
- II. C joined after 6 months with Rs. 4 lakhs
- III. After two years, A's share in profit was Rs. 60000.
  - (1) Only I and II are sufficient
  - (2) Only II and III are sufficient
  - (3) Either I or II and III are sufficient'
  - (4) All I, II and II are necessary to answer the question
  - (5) The question cannot be answered even with all I, II and

**Directions (71-75):** Study the following table to answer these questions.

#### Number of Officers in various Departments of an Organisation in different Scales

Qeptt.	Personnel	Operations	Systems	Accounts	Maintenance	Public
Scale			100			Relations
I	225	725	750	300	325	175
II	120	426	576	288	240	150
III	75	250	320	120	85	100
IV	40	126	144	60 <sub>/</sub>	30/	50
V	25	65	70	35 /	20	35
VI	4	20	28	15	8	5

- 71. In Public Relations department the number of employees in Scale II is less than that in Scale I by what percent? (rounded off to two digits after decimal).
  - (1) 14.67
    - (2) 16.67
  - (3) 14.29
- (4) 16.27
- (5) None of these
- 72. Out of the total number of employees in 'Personnel' department, approximately what per cent of employees are in scale II?
  - (1)30
- (2)28
- (3) 22
- (4)20
- (5)25
- 73. What percentage of Scale IV officers are deployed in 'Operations' department?
  - (1)26.5
- (2)28
- (3)28.5
- (4) 27(5) None of these
- 4. What is the ratio between the total number of employees in Scale III and Scale IV respectively?
  - (1) 19 : 9
- (2) 9:19
- (3) 17 : 9
  - (4) 9:17
- (5) None of these
- 75. Total number of employees in Scale VI is what per cent of the total number of employees in Scale-I?

- (1) 2.8
- (2) 2.4 $(4) \ 3.2$
- (3) 3.6
- (5) None of these
- 76. A shopkeeper sold a T.V. set for Rs. 17,940/-, with a discount of 8% and gained 19.6% If no discount is allowed, what will be his gain per cent?
  - (1) 25%
- (2) 26.4%
- (3) 24.8%
- (4) Cannot be determined
- (5) None of these
- 77. Four of the following five parts numbered 1, 2, 3, 4 and 5 are equal. Which of the following is not equal to the other four.?
  - $(1) 24^2 12^2 + 112 \div 14 =$
  - (2)  $17 \times 12 + 59 \times 4 =$
  - $(3)15 \times 28 + 20 =$
  - $(4)\ 27 \times 16 + 56 \div 8 =$
  - (5)  $185 \times 6 \div 2 23 \times 5$
- 78. Which value of x does satisfy the inequality  $2x^2 + x - 3 < 0$ ?
  - (1)  $-\frac{3}{2} < x < 1$  (2)  $-1 < x < \frac{2}{3}$
  - (3) x > 1
- (5) None of these

79. What will come in place of the question mark (?) in the following equation?

 $\sqrt{625.04} \times 16.96 + 136.001 \div 17 = ?$ 

- (1) 4.18
- (2) 4.41 (4) 433
- (3)425
- (5) None of these
- 80. A bag contains 2 red, 3 green and 2 blue balls. 2 balls are to be drawn randomly. What is the probability that the balls drawn contain no blue ball?
  - $(1)\frac{1}{7}$
- (3) =
- (5) None of these
- 81. The present ages of A, B and C are in the ratio of 8:14:22 respectively. The present ages of B, C and D are in the ratio of 21:33:44 respectively. Which of the following represents the ratio of the present ages of A, B, C and D respectively?

(1) 12:21:33:44

- (2) 12:22:31:44
- (3) 12:21:36:44
- (4) Cannot be determined
- (5) None of these
- 82. Dheeraj distributed his total assets to his wife, three sons, two daughters and five grandchildren in such a way that each grandchild got one-eighth of each son or one-tenth of each daughter. His wife got 40 per cent of the total share of his sons and daughters together. If each daughter received asset of worth Rs. 1.25 lakh, what was the total worth of the assets received by his wife and the three grandchildren together?
  - (1) Rs. 32,500
  - (2) Rs. 2,57,500
  - (3) Rs. 2,82,500
  - (4) Cannot be determined
  - (5) None of these
- 83. Seven men, five women and eight children were given an assignment of distributing 2000 books to students in a school over a period of three days. All of them distributed books on the first day. On the second day two women and three children remained absent and on the third

day three men and five children remained absent. If the ratio of the number of books distributed in a day by a man, a woman and a child was 5:4:2 respectively, a total of approximately how many books were distributed on the second day?

- (1) 1000
- (2)800
- (3)650
- (4)900
- (5) Cannot be determined
- 84. In a one-day cricket match the captain of one of the teams scored 30 runs more than the average runs scored by the remaining six batsmen of that team who batted in the match. If the total runs scored by all the batsmen of that team were 310, how many runs did the captain score?
  - (1)60
- (2)70
- (3)50
- (4) Cannot be determined
- (5) None of these
- 85. The radius of a circle is 20% more than the height of a right angled triangle. The base of triangle is 36cm. If the area of triangle and circle be equal, what will be the area of circle?

- (1) 72 cm<sup>2</sup> (2) 144 cm<sup>2</sup> (3) 216 cm<sup>2</sup> (4) 128 cm<sup>2</sup>
- (5) Cannot be determined

Directions (86-90): What approximate value will come in place of the question mark (?) in following equations?

- **86.**  $3.2 \times 8.1 + 3185 \div 4.95 = ?$ 
  - (1)670
- (2)660(4) 690
- (3)645
- (5)685
- **87.**  $2508 \div 15.02 + ? \times 11 = 200$ 
  - (1) 13
- (2)8(4) 4
- (3) 3
- (5)6
- **88.** 35% of 121 + 85% of 230.25 = ?
  - (1)225(3)240
- (2)230(4)245
- (5)228
- **89.**  $2375.85 \div 18.01 4.525 \times 8.05$ 
  - =?
  - (1) 105
- (2)96
- (3)88
- (4)90
- (5)112
- **90.**  $42.07 \times 7.998 + (?)^2 = 20^2$ 
  - (1)6
- (2) 12 (4) 64
- (3)32
- (5)8

Directions (91-95): Study the following table carefully and answer the questions given below:

#### Number of students studying in different faculties in Seven lustitutions

Institution	FACULTY				
macretation	Art	Commerce	Science	Engineering	Management
A	125	187	216	98	C74m
В	96	152	198	157	147
C	144	235	To 110 0	petil64 Ex	du C127
D	165	138	245	66	36
E	215	196	287	86	66
F	184	212	195	√ 112	97
G	225	206	182	138	89

- 91. What is the percentage of students studying Science to the total number of students studying in the institute G?
  - (1) 17.20
- (2) 12.70

- (5) None of these
- 92. Out of the total students of the institute 'D', approximately, what percentage of students are studying Management?
  - (1)9
- (2)8

- (3) 12(4) 10(5)5
- 93. The total number of students studying Art in institutes A, B and C together is approximately what per cent of total number of students studying Commerce in institutes D, E, F and G together?
  - (1)50
- (2)45(4)55
- (3)42
- (5)53
- 94. What is the percentage of students studying Engineering in

- institute C to the total students of all institutions studying Engineering? (rounded to the nearest integer)
- (1) 19
- (2)20
- (3).18
- (4) 21
- (5) None of these
- 95. In which institution, the percentage of students studying Commerce to the total students of that institution is maximum?
  - OYF
- (2) G
- (3) C
- (4) A
- (5) None of these
- 96. A train crosses a 300 metre long platform in 38 seconds while it crosses a signal pole in 18 seconds. What is the speed of the train in kmph?
  - (1) Cannot be determined
  - (2) 72
  - (3) 48
- (4)54
- (5) None of these
- **97.** If 2x + 5y = 109 and 2x + 5 = y + 10912 then y - x = ?
  - (1) 7
    - (2)6
  - (3) 8(4)9(5) None of these
- 98. Four of the following five parts numbered (1), (2), (3), (4) and (5) are exactly equal. The number of the part, which is not equal to the other four parts, is your answer.

$$45 \times 12 + 60 = 80\% \text{ of } 800 - 40$$

of 1200-150=1260 ÷ 3 ÷ 180

(4)

$$= 8640 \div 16 + 60$$
(5)

- 99. Area of circle is equal to the area of a rectangle having perimeter of 50cms, and length more than the breadth by 3 cms. What is the diameter of the circle?
  - (1) 7 cms.
- (2) 21 cms.
- (3) 28 cms. (4) 14 cms.
- (5) None of these
- 100. Three-fourth of a number is equal to 60% of another number. What is the difference between the numbers?
  - (1)18(3)24
- (2)32
- (4) Cannot be determined
- (5) None of these

#### General Knowledge and Insurance Knowledge

- 101. In which of the following years the Government of India nationalised the general insurance business under the General Insurance Business (Nationalisation) Act?
  - (1) 1970
- (2) 1972
- (3) 1976
- (4) 1973
- (5)1981
- 102. When was the Kalka-Shimla Railway Line added to the UNESCO's World Heritage List?
  - (1) April 18, 2008
  - (2) July 8, 2008
  - (3) August 15, 2007
  - (4) January 26, 2008
  - (5) March 23, 2008
- **103.** The famous Kailasanath Temple at Kanchi was built by—
  - (1) Mahendravarman I
  - (2) Narasimhavarman II
  - (3) Nandivarman II
  - (4) Dantivarman
  - (5) None of these
- **104.** Shivaji ceded the forts to the Mughals by the treaty of—
  - (1) Chittor
- (2) Pune
- (3) Purandar (4) Torna
- (5) None of these
- 105. The Life Insurance Corporation of India was established in September 1956 under an Act of the Indian Parliament.

  The Government of India invested a capital of \_\_\_\_\_ in this corporation.
  - (1) Rs. 5 crore
  - (2) Rs. 4 crore
  - (3) Rs. 7 crore
  - (4) Rs. 3 crore.
  - (E) None of these
  - (5) None of these
- 106. Bindusara sent Asoka to quell the rebellion in—
  - (1) Swarnagiri (2) Taxila
  - (3) Ujjain (4) Tosali
  - (5) None of these
- 107. Royal Asiatic Society was founded by
  - (1) Sir William Jones
  - (2) Sir John Marshall
  - (3) R. D. Banerjee
  - (4) Sir William Bentick
  - (5) None of these

- 108. The first Sultan of Delhi, who attempted the conquest of South India was
  - (1) Qutb-ud-din Mubarak
  - (2) Nasir-ud-din Khusrav Shah
  - (3) Ala-ud-din Khilji
  - (4) Jala-ud-din Firoz
  - (5) None of these
- 109. Which of the following countries in February 2008 lifted a ban on Islamic headscarves at varsities?
  - (1) Turkey
- (2) Germany
- (3) Kuwait (4) Afghanistan
- (5) Indonesia
- 110. Mahabalipuram is an important city that reveals the interest in arts of
  - (1) Pallavas
- (2) Cheras
- (3) Pandyas
- (4) Chalukyas
- (5) None of these
- 111. The renowned musician duo, Tansen and Baiju Bawra, flourished during the reign of—
  - (1) Jehangir
  - (2) Bahadur Shah Zafar
  - (3) Akbar
  - (4) Shah Jahan
  - (5) None of these
- 112. Lord Mahavira died at
  - (1) Saravana Belagola
    - (2) Lumbini Garden
    - (3) Kalugumalai
    - (4) Pavapuri
    - (5) None of these
- 113. The Indus people knew the use of Weights and Measures, which is proved by the discovery of the seal at—
  - (1) Kalibangan (2) Harappa
  - (3) Chanhudaro (4) Lothal
  - (5) None of these
- 114. Which language was mostly used for the propagation of Buddhism?
  - (1) Sanskrit
- (2) Prakrit
- (3) Pali
- (4) Sauraseni
- (5) None of these
- e-Governance was held in February 2008 at
  - (1) Chennai (2) Guwahati
  - (3) Jaipur (4) Chandigarh
  - (5) None of these
- **116.** Which of the following statements about Kharif and Rabi is not correct?

- (1) Kharif season begins with the onset of monsoon season and harvested in late Spring
- (2) Kharif season begins with the onset of monsoon season and harvested in Autumn
- (3) Rabi season begins in Autumn after the rains and harvested in late Spring.
- (4) Important Kharif crops are rice, millets, jute, maize and cotton; important Rabi crops are wheat, gram, barley and linseed
- (5) None of these
- 117. Raniganj Coal Mine is situated in
  - (1) Bihar
  - (2) Madhya Pradesh
  - (3) West Bengal
  - (4) Maharashtra
  - (5) None of these
- 118. Bosnia-Herzegovina formed the parts of
  - (1) Czechoslovakia
  - (2) Yugoslavia (3) Bulgaria
  - (4) Azerbaijan (5) None of these
- 119. Major producer of sugar is
  - (1) Australia
- (2) Cuba
- (3) India
- (4) Mauritius
- (5) None of these
- 120. In the north-east of the Deccan plateau is the—
  - (1) Chhota Nagpur plateau
  - (2) Malawa plateau
  - (3) Deccan plateau
  - (4) Vindhyan Range
  - (5) None of these
- **121.** If the insured amount is made payable to other party, the procedure is called
  - (1) Nomination (2) Return
  - (3) Transfer
    - ınsfer (4) Will making
  - (5) Coordination
- 122. The latitude of a place is expressed by its angular distance in relation to—
  - (1) Equator
- (2) South Pole
- (3) Axis of the Earth
- (4) North Pole
- (5) None of these
- 123. The southern tip of India is
  - (1) Cape Comorin
  - (2) Point Calimere
  - (3) Indira Point in Nicobar Islands
  - (4) Kovalam in Trivandrum
  - (5) None of these

- **124.** Which one of the following States does not use thermal electricity?
  - (1) Andhra Pradesh
  - (2) Tamil Nadu
  - (3) Arunachal Pradesh
  - (4) Madhya Pradesh
  - (5) None of these
- 125. What is accupuncture?
  - (1) A heart disease
  - (2) Cleaning of tube and tyre
  - (3) Treatment with needles
  - (4) A crop improvement
  - (5) None of these
- 126. The Central Government in January 2008 extended the term of the Investment Commission of India till December 2009. Who is the head of the Investment Commission?
  - (1) Sunil Bharti Mittal
  - (2) KV Kamath
  - (3) Ratan Tata
  - (4) Sam Pitroda
  - (5) None of these
- 127. 'Lucknow Pact' was a deal between
  - (1) Indians and the British about legislative seats
  - (2) Hindus and Muslims regarding seat sharing in legislatures
  - (3) Depressed castes and Brahmins about job reservations
  - (4) Hindus and Sikhs about job reservations
  - (5) None of these
- 128. The joint session of the Congress and Muslim League was held in 1916 at—
  - (1) Delhi
- (2) Kanpur
- (3) Lucknow (4) Madras
- (5) None of these
- 129. Who, among the following, founded the 'All India Depressed Classes Federation' in 1920?
  - (1) M.K. Gandhi
  - (2) Jyotiba Phule
  - (3) G.K. Gokhale
  - (4) B.R. Ambedkar
  - (5) None of these
- 130. The first Trading Centre which was established by the British was
  - (1) Kolkata
- (2) Surat
- (3) Chennai
- (4) Mumbai
- (5) None of these

- **131.** The Mir Bakshi of the Mughal Emperors was the head of
  - (1) Intelligence
  - (2) Foreign affairs
  - (3) Army organisation
  - (4) Finance
  - (5) None of these
- **132.** Who, among the following, was not a part of the Mauryan dynasty?
  - (1) Ajatasatru (2) Bindusara
  - (3) Chandragupta Maurya
  - (4) None of the above
  - (5) All of the above
- 133. When and which Governor-General decided to make English the medium of instruction in India?
  - (1) 1805-Lord Wellesley
  - (2) 1845-Lord Hardinge
  - (3) 1835-Lord William Bentick
  - (4) 1850-Lord Dalhousie
  - (5) None of these
- 134. In order to facilitate the entry of private entity in insurance sector when did the Central Government establish Insurance Regulatory and Development Authority?
  - (1) April 2000 (2) March 2000
  - (3) May 1999 (4) August 2001
  - (5) None of these
- 135. Normal blood pressure of man
  - (1) 80/120 mm Hg
  - (2) 90/140 mm Hg
  - (3) 120/160 mm Hg
  - (4) 85/120 mm Hg
  - (5) None of these
- 138. Sugarcane plants are usually propagated by vegetative means because
  - (1) they do not produce seeds
  - (2) it is possible to maintain genetic quality
  - (3) the incidence of disease may be reduced
  - (4) the seeds are not viable
  - (5) None of these
- **137.** Who among the following is popularly known as 'Periyar'?
  - (1) C.V. Raman Pillai
  - (2) C.N. Mudaliar
  - (3) E.V. Ramaswamy Naicker
  - (4) L. Ramkrishna Pillai
  - (5) None of these
- **138.** Sangam Age is associated with the history of

- (1) Benaras
- (2) Allahabad
- (3) Tamil Nadu (4) Khajuraho
- (5) None of these
- 139. The compensation amount was increased to Rs. \_\_\_\_lakh from Rs. 3 lakh from November 1999 under Mediclaim scheme?
  - (1) Seven
- (2) Four
- (3) Six
- (4) Five
- (5) Eight
- **140.** The pigment involved in photosynthetic activity is
  - (1) anthocyanin
  - (2) fucxanthin (3) carotenoid
  - (4) chlorophyl (5) None of these
- 141. Which one of the following is a condition of delayed blood clotting?
  - (1) Heaemorrhage
  - (2) Hematuria
  - (3) Haemophilia
  - (4) Anaemia
  - (5) None of these
- 142. Which of the following cities in February 2008 won the bid for hosting the world's first ever Youth Olympics Games in 2010?
  - (1) Moscow (3) Berne
- (2) Singapore (4) Beijing
- (5) None of these
- **143.** A Nuclear Power Station is located at
  - (1) Kolkata
- (2) Tarapur (4) Neyveli
- (3) Korba (4) (5) None of these
- **144.** The road that negotiates four high passes of the world in the Himalayas is
  - (1) Darjeeling to Nepal
  - (2) Shimla to Dalhousie
  - (3) Manali to Leh
  - (4) Shimla to Kulu
  - (5) None of these
- **145.** The first multi-purpose project of independent India is
  - (1) Bhakra-Nangal
  - (2) Damodar
  - (3) Hirakud
  - (4) Nagarjunasagar
  - (5) None of these
- **146.** Which of the following pairs is not correctly matched?
  - (1) Jeevan Aadhar January 16,
  - (2) Janata Bima Patra May 16, 1957
  - (3) Jeevan Suraksha August 15, 1996

- (4) Jeevan Sneha January 16, 1997 (5) Jan Aarogya Insurance Policy - August 12, 1996 147. I.B.R.D. is also known as (1) International Bank (2) World Bank (3) Asian Development Bank (4) Bank of America (5) None of these 148. Which of the following films won the coveted Golden Bear award for best film in February 2008 at the Berlin Film Festival? (1) There Will Be Blood (2) The Reader (3) Elite Squad (4) The Mystique (5) El Baton 149. 'Operation Flood' refers to (1) increase in the production of (2) increase in the production of dairy products (3) controlling flood (4) increasing the production of agricaltural
- (5) None of these 150. Who has taken the highest number of wickets in an ODI game? (1) M. Muralitharan (2) Chaminda Vass
  - (3) Glen McGrath
  - (4) Wasim Akram
  - (5) None of these

#### English Language

Directions (151-155): In each of the following sentences there are two blank spaces. Below each sentence there are five pairs of words denoted by numbers (1), (2), (3), (4) and (5). Find out which pair of words can be filled up in the blanks in the sentence in the same sequence to make the sentence grammatically correct and meaningfully complete.

in their 151. Most people are too\_ much about own lives to\_\_\_ the agonies of others.

- (1) absorbed.....care
- (2) concerned.....think
- (3) indulged......eradicate
- (4) involved......console
- (5) entangling.....worry

- 152. Doctors and lawyers advertising will certainly their profession adversely.
  - (1) trust......damage
  - (2) believe.....affect
  - (3) contemplate.....boost
  - (4) argue.....effect
  - (5) plead.....escalate
- 153. Because the\_\_ leading to cancellation of flight were murky, the Minister appointed a Commission to\_\_\_\_and report the matter.
  - (1) staff members ..... undertake
  - (2) decisions.....decide
  - (3) facts.....underplay
  - (4) events......camouflage
  - (5) circumstances....investigate
- 154. Several plots\_ ous television episodes.
  - (1) screen.....concurrently
  - (2) televised.....consequently
  - (3) occur.....repeatedly
  - (4) exhibit......frequently
  - (5) demonstrate .....violently
- of their athletic activities, a few sportsmen are able to escape the pressures that living in\_\_\_\_ can create.
  - (1) knowledge..... affluence
  - (2) way.....prosperity
  - (3) order.....vicinity
  - (4) virtue.....poverty
  - (5) contrast......adversity

Direction (156-165): Which of the phrases (1), (2), (3) and (4) given below should replace the phrase given in **bold** in the following sentence to make the sentence gramatically meaningful and correct. If the sentence is correct as it is and no correction is required, mark (5) as the answer.

156. In guest rooms, the central portion is generally reserved for sofa set.

- (1) generally is reserved
- (2) is reserved generally
- (3) was generally reserved
- (4) are generally reserved
- (5) No correction required
- 157. In the production of desert trees, Nature seems sometimes to have been experimenting
  - with the truly strange. (1) seemto have been sometimes
  - experimenting (2) seems sometimes to have been experimented

- (3) sometimes seen to be experiemented
- (4) sometimes seem to have experimented
- (5) No correction required
- 158. In the first round, the participants played in the presence of an accomplie who was committed deliberate errors.
  - (1) committed deliberate
  - (2) was to be committed deliber-
  - (3) had committed deliberately
  - (4) committed deliberately
  - (5) No correction required
- 159. What did prevent from winning the battle is not known.
  - (1) What prevented them to win
  - (2) What prevent them from win-
  - (3) What prevented them from winning
  - (4) What prevented their winning
  - (5) No correction required
- 160. The scenario was identical to the one that was to be observed in the previous tournament.
  - (1) was observing
  - (2) had been observing
  - (3) was observed
  - (4) was to observe
  - (5) No correction required
- 161. The impact of the composite bow on warfare was equal to the crossbow of medieval times.
  - (1) was equal to of the
  - (2) is equal to the
  - (3) is equal to that
  - (4) was equal to that of the
  - (5) No correction required
- 162. Culture, climate and geography plays an important part in the formation of any proverb.
  - (1) plays an important role
  - (2) plays a important part
  - (3) play an important role
  - (4) play a important part
  - (5) No correction required
- 163. This book will be of particular interested to those fascinated by the recent philsophy.
  - (1) of particularly interested
  - (2) of particular interest
  - (3) of interested in particular
  - (4) particularly of interested
  - (5) No correction required

- **164.** These days developed countries have started **looking down** for underdeveloped countries as it is advantageous for both the parties.
  - (1) looking after
  - (2) looking down upon
  - (3) to look down at
  - (4) looking for at
  - (5) No correction required
- **165.** The methods to **adopt for eradication** of poverty should depend upon the magnitude and nature of resources available.
  - (1) to adopt for eradicating
  - (2) to be adopted for eradication
  - (3) to be adopting to eradicate
  - (4) for adoption of eradication
  - (5) No correction required

**Directions (166-180):** Read the following passage carefully and answer the questions given below it. Certain words/expressions are given in **bold** in the passage to help you locate them while answering some of the questions.

Radically changing monsoon patterns, reduction in the winter rice harvest and a quantum increase in respiratory diseases-all part of the environmental doomsday scenario which is reportedly playing out in South Asia. According to a United Nations Environment Programme report, a deadly three-km deep blanket of pollution comprising a fearsome cocktail of ash, acids, aerosols and other particles has enveloped this region. For India, already struggling to cope with a drought, the implications of this are devastating and further cropfailure will amount to a life and death question for many Indians. The increase in premature deaths will have adverse social and economic consequences and a rise in morbidities will place an unbearable burden on our crumbling health system. And there is no one to blame but ourselves. Both official and corporate India has always been allergic to any mention of clean technology. Most mechanical two wheelers roll off the assembly line without proper pollution control system. Little effort is made for R & D on simple technologies, which could make a vital difference to people's lives and the environment.

However, while there is no denying that South Asia must clean up its act, skeptics might question the timing of the haze report. The Johannesburg meet on Rio+10 is just two weeks away and the stage is set for the usual battle between the developing world and the West, particularly the U.S. President Mr. Bush has adamantly refused to sign any protocol, which would mean a change in American consumption level. U.N. environment report will likely to find a place in the U.S. arsenal as it plants an accusing finger towards controls like India and China. Yet the U.S. can hardly deny its own dubious role in the matter of erasing trading quotas. Richer countries can simply buy up excess credits from poorer countries and continue to pollute. Rather than try to get the better of developing countries, who undoubtedly have taken up environmental shortcuts in their bid to catch up with the West, the U.S. should take a look at the environmental profligacy, which is going on within. From opening up virgin territories for oil exploration to relaxing the standards for drinking water, Mr. Bush's policies are not exactly beneficial, not even to America's interests. We realize that we are all in this together and that pollution anywhere should be a global concern otherwise only be more tunnels at the end of the tunnel.

- **166.** Both official and corporate India is allergic to
  - (1) failure of monsoon
  - (2) poverty and inequality
  - (3) slowdown in industrial production
  - (4) mention of clean technology
  - (5) crop failure
- 167. Which, according to the passage, is a life and death question to many Indians?
  - (1) Increase in respiratory diseases
  - (2) Use of clean technology
  - (3) Thick blanket of pollution over the region
  - (4) Failure in crops
  - (5) Dwindling agricultural yield
- **168.** If the rate of premature deaths increases it will :
  - (1) exert added burden on our crumbling economy.
  - (2) have adverse social and economic consequences.
  - (3) make positive effect on our efforts to control population.

- (4) have less job aspirants in the society.
- (5) have healthy effect on our economy.
- 169. Choose the word which is SIMILAR in meaning of the word 'profligacy' as used in the passage.
  - (1) wastefulness
  - (2) conservation
  - (3) upliftment (4) criticalness
  - (5) denouncement
- **170.** According to the passage, India cannot tolerate any further:
  - (1) crop failure
  - (2) deterioration of health care system
  - (3) increase in respiratory diseases
  - (4) proliferation of nuclear devices
  - (5) social and economic consequences
- 171. According to the passage, two wheeler industry is not adequately concerned about ----
  - (1) passenger safety on the roads
  - (2) life cover insurance of the vehicle owners
  - (3) pollution control system in the vehicles
  - (4) rising cost of the two wheelers
  - (5) rising cost of the petrol in the country
- 172. What could be the reason behind timing of the haze report just before the Johannesburg meet, as indicated in the passage?
  - (1) United Nations is working hand-in-glove with U.S.
  - (2) Organisess of the forth coming meet to teach a lesson to the U.S.
  - (3) Drawing attentions of the world towards devastating effects of environment degradation.
  - (4) U.S. wants to use it as a handle against the developing countries in the forthcoming meet
  - (5) The meet is a part of political agenda of the U.N.
- 173. Choose the word which is **SIMILAR** in meaning of the word 'allergic' as used in the passage.
  - (1) liking (2) passionate
  - (3) possessive (4) crumbling
  - (5) repugnant

- 174. Which of the following is the indication of environmental degradation in South Asia?
  - (1) Social and economic inequality
  - (2) Crumbling health care system
  - (3) Inadequate pollution control system
  - (4) Overemphasis on technology
  - (5) Radically changing monsoon pattern
- . 175. What must we realise, according to the passage?
  - (1) No country should show superiority over other countries.
  - (2) U.N. is putting in hard efforts in the direction of pollution control.
  - (3) All countries must join hands in fighting pollution.
  - (4) Nobody should travel through tunnel to avoid health hazards.
  - (5) We all must strive hard to increase agricultural production.
  - 176. Which of the following finds place in the United Nations Environment Programme Report?
    - (1) Changing monsoon patterns
    - (2) Substantial increase in respiratory diseases
    - (3) A serious cover of pollution over the region
    - (4) Reduction in winter rice harvest
    - (5) None of these
  - 177. Which of the following statements is NOT TRUE in the context of the passage?
    - (1) U.N. environment report blames countries like India and China
    - (2) Developing countries have taken environment shortcuts in their bid to catch up with
    - (3) U.S. is also to be blamed for environmental degradation and pollution
    - (4) Indians cannot afford to have any further crop failure
    - (5) U.S. has tightened safety standards for drinking water
  - 178. According to the passage, Johannesburg meet is going to witness-

- (1) calm and dispassionate thinking on the issue of pollution control
- (2) a blaming game between developed and developing countries
- (3) refusal of U.N. to work as arbitrator
- (4) U.S. agreeing to look at the issue of lowering its consumption
- (5) countries agreeing for higher monetary allocation to R & D.
- 179. Choose the word which is MOST OPPOSITE in meaning to the word 'dubious' as used in the passage?
  - (1) unquestionable
  - (2) dissimilar (3) illegal
  - (4) antisocial
- (5) innovative
- 180. Choose the word which is the MOST OPPOSITE in meaning to the word 'morbidity' as used in the passage.
  - (1) powerfulness
  - (2) healthiness (3) softness
  - (4) acuteness (5) purposeful

Directions (181-185): Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph; then answer the questions given below them.

- (A) No one knows their names.
- (B) With irrigation systems, farmers were able to raise more food with less labour.
- (C) The first engineers lived in the middle East, probably around 3500 B.C.
- (D) Today's city, thus, is essentially still a place where specialists live and work.
- (E) Thus, an increasing number of people were relieved of agricultural chores and able to gather in cities to practise specalities.
- (F) However, they conceived and built the elevated irrigation canal.
- 181. Which of the following will be the SIXTH (LAST) sentence after rearrangement?

(2) B(1)A

(3) C (4) D

(5) E

182. Which of the following will be the FIRST sentence after rearrangement?

(1)A (2) B (3)C(4) D (5) E

183. Which of the following will be the FOURTH sentence after rearrangement?

(1) A

(3)C(4) D

(5) E

184. Which of the following will be the FIFTH sentence after rearrangement?

(1)A

(2) B(4) D

(2) B

(3)<sub>C</sub>

(5) E

185. Which of the following will be the SECOND sentence after rearrangement?

(2) B (1)A

(3) C (4) D

(5) E

Directions (186-195): In the following passage, there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

Studies 186 the impact of computer models to support policy-making processes in organizations have 187 that client involvement in the modelbuilding process is often a 188 for effective model building. One important reason is that the process of model building is frequently more important than the resulting model. Model building itself is largely a 189 process about the problem. Most 190 about the characteristics of an illstructured problem are gained during the 191 process of designing a computer model, rather than after the model is finished. Another important reason is that most information in an organisation 192 in the mental models of organisation members. To support policy making in organisation it is this knowledge which needs to be 193 and represented in the model. An important topic in client-oriented or 194 model building thus becomes the 195 of relevant knowledge contained in the mental models of participants.

186.(1) evaluating (2) focussing

- (3) projecting
- (4) advocating
- (5) directing

- 187.(1) devised
  - (2) exhibited
  - (3) convinced
  - (4) attributed
  - (5) indicated
- **188.**(1) support (2) valuation
  - (3) prerequisite
  - (4) material (5) blueprint
- **189.**(1) valuable (2) durable
  - (3) tedious (4) learning
  - (5) critical
- **190.**(1) thinking (2) insights
  - (3) planning (4) appreciation
  - (5) opinions
- 191.(1) elongated (2) concentrated
  - (3) iterative (4) evolving
  - (5) consumate
- **192.**(1) resides (2) follows
  - (3) settles (4) lays
  - (5) committed
- 193.(1) extended (2) bisected
  - (3) subjected (4) captured
  - (5) attributed
- 194.(1) revolving (2) interactive
  - (3) dogmatic (4) accentuated
  - (5) formative
- 195.(1) demarcation
  - (2) formation (3) proliferation
  - (4) association
  - (5) elicitation

Directions (196-200): In each question below a sentence with four words printed in bold type is given. These are numbered as (1), (2), (3) and (4). One of these four **boldly** printed words may be either **wrongly spelt** or **inappropriate** in the context of the sentence. Find out the word which is wrongly spelt or inappropriate, if any. The number of that word is your answer. If all the boldly printed words are correctly spelt and also appropriate in the context of the sentence, mark (5) i.e., 'All Correct' as your answer.

- 196. The questionaire/(1) reflected/
  (2) various phenomena(3)/that
  are sparingly(4)/ experienced.
  All correct/(5)
- 197. Countrary/(1) to popular belief,(2)/ripe fruits are not necessarily (3)/ delicious. (4) All Correct (5)
- 198. The most ambitious (1)/ enterprise (2)/undertaken in the ancient (3)/Egypt was of the construction (4)/ of pyramids. All Correct (5)

- 199. The astronomical (1)/calculations (2)/were admiringly (3)/accurate. (4) All Correct (5)
- 200. Looking inward from the top of the ramparts, (1)/the sentries(2)/had a marvellous panerama(3)/spread (4)/ before them. All Correct (5)

#### **Key**

<b>1.</b> (5)	<b>2.</b> (3)	<b>3.</b> (3)	<b>4.</b> (3)
<b>5.</b> (3)	<b>6.</b> (3)	<b>7.</b> (3)	8,(2)
<b>9.</b> (5)	10.(3)	11.(1)	12.(4)
<b>13.</b> (3)	14.(2)	<b>15.</b> (4)	<b>16.</b> (1)
<b>17.</b> (4)	<b>18.</b> (5)	<b>19.</b> (3)	<b>20</b> . (2)
<b>21.</b> (3)	<b>22</b> .(2)	<b>23.</b> (4)	<b>24.</b> (5)
<b>25.</b> (4)	26.(4)	<b>27.</b> (5)	<b>28.</b> (1)
<b>29.</b> (3)	<b>30.</b> (2)	31.(2)	<b>32</b> .(2)
<b>33.</b> (3)	<b>34.</b> (1)	<b>35.</b> (3)	<b>36</b> .(5)
<b>37.</b> (4)	<b>38.</b> (5)	<b>39</b> .(5)	40.(4)
41.(2)	42.(4)	43.(4)	44.(2)
<b>45.</b> (4)	46.(5)	47.(5)	48.(2)
49.(5)	<b>50.</b> (1)	51.(1)	<b>52.</b> (3)
<b>53.</b> (2)	54.(1)	55.(3)	<b>56.</b> (5)
<b>57.</b> (1)	<b>58.</b> (3)	<b>59.</b> (5)	<b>60.</b> (2)
61.(4)	<b>62.</b> (5)	<b>63</b> .(3)	<b>64</b> .(2)
65.(1)	66.(4)	67.(5)	<b>68</b> .(2)
<b>69.</b> (5)	70.(1)	7/1.(3)	<b>72.</b> (5)
73.(2)	74.(1)	75.(4)	<b>76.</b> (5)
<b>77.</b> (4)	78.(1)	79.(4)	<b>80.</b> (2)
<b>81.</b> (1)	82.(2)	<b>83.</b> (3)	<b>84.</b> (2)
<b>85.</b> (1)	<b>86.</b> (2)	<b>87.</b> (3)	<b>88</b> .(3)
89.(4)	<b>90.</b> (5)	91.(4)	<b>92</b> .(5)
93.(1)	94.(4)	<b>95.</b> (3)	<b>96.</b> (4)
97.(5)	<b>98.</b> (3)	99.(4)	100.(4)
101.(4)	<b>102</b> .(2)	103.(2)	104.(3)
105.(1)	<b>106.</b> (3)	107.(1)	<b>108.</b> (3)
109.(1)	110.(1)	111.(3)	112.(4)
113.(2)	114.(3)	115.(4)	<b>116.</b> (1)
117.(3)	118.(2)	119.(2)	<b>120</b> .(1)
121.(2)	<b>122.</b> (1)	<b>123</b> .(3)	<b>124.</b> (3)
<b>125</b> .(3)	<b>126.</b> (3)	<b>127</b> .(2)	<b>128.</b> (3)
129.(4)	130.(2)	<b>131.</b> (3)	<b>132.</b> (1)
<b>133.</b> (3)	134.(1)	<b>135.</b> (1)	136.(1)
<b>137.</b> (3)	<b>138.</b> (3)	139.(4)	140.(4)

	/		\\_
141.(3)	142.(2)	143.(2)	144.(3)
<b>145</b> .(2)	<b>146</b> .(1)	147.(2)	148.(3)
<b>149.</b> (1)	<b>150.</b> (1)	<b>151.</b> (2)	<b>152.</b> (2)
<b>153.</b> (5)	<b>154</b> .(3)	155.(4)	<b>156</b> :(5)
<b>157.</b> (5)	<b>158.</b> (3)	<b>159</b> .(3)	160.(3)
161.(4)	<b>162.</b> (3)	163.(2)	164.(1)
<b>165</b> .(2)	166.(4)	167.(4)	168.(2)
169.(1)	170.(1)	171.(3)/	172.(4)
173.(2)	174.(5)	175.(3)	<b>176</b> .(3)
177.(5)	178.(2)	179.(1)	180.(2)
181.(4)	<b>182.</b> (3)	183.(2)	<b>184</b> ,(5)
185.(1)	186.(2)	<b>187.</b> (5),	188.(1)
189.(4)	<b>190</b> .(3)	191.(4)	192.(4)
193.(5)	194.(5)	<b>195.</b> (3)	196.(4)
197.(1)	198.(2)	<b>199.</b> (5)	<b>200</b> .(3)

# **Answers with Explanations**

1. (5) As,

man and women have come 1. 2 3 4 forward to offer support 6 8 ⇒ offer forward men have 8 4 6 1 support women to and come 9 Similarly,

enforced is to the legislation

1 2 3 4 5
government need state going

6 7 8 9

 $\Rightarrow$  state the government enforced 8 4 6 1 going to need is legislation 9 3 7 2 5

- 2. (3) V O C A L I S T  $\Rightarrow$  51293872 On writing in reverse order  $\rightarrow$  2 7 8 3 9 2 1 5
- 3. (3)  $A \rightarrow 9$ ,  $R \rightarrow \%$ ,  $T \rightarrow 7$ ,  $E \rightarrow \#$  and  $Y \rightarrow 8$  $\therefore ARTERY \rightarrow 9\%7 \# \%8$
- **4.** (3) S > Q > P > B > A ∴ Only (b) or (c)
- 5. (3) Meaningful word from A, P, G and S is only one i.e. G A P S
- 6. (3) Neeta is 22nd from the top and Kalyan is 22 + 5 = 27th from the top and 34th from the bottom who passed the examination. Therefore, total number of students who passed the examination.

= 27 + 34 - 1 = 60

Therefore, total number of students in the class

$$= \frac{60}{4} \times 5$$

= 75

7. (3) C O M P A N I 1 1 1 1 1 1 1 1 1 SEINCCAMO

**8.** (2) Meaningful word  $\Rightarrow$  B E A  $\boxed{C}$  H

Fourth Letter

9. (5)

6 7 8 1 2 3 4 5 what else can you do for me Mr. Ajay

It has been coded as

9 2 5 7 6 3 - 8 1 you Mr. what can Ajay else do me for Therefore,

3 4 5 6 anyone else who can do such favour to me It will be coded as

481 3 9 can to anyone who me else do favour such

10. (3) B is the husband of P. Therefore, P is wife of B.

D is husband of E. E is mother-in-law of P.

B is son of D.

(11-15):

(i) There are altogether 21 elements.

- (ii) There are 12 letters.
- (iii) There are 5 digits.
- (iv) There are 4 symbols.
- (v) The middle element is '2', i.e., eleventh from the either end.

11.(1) There are 12 letters and 4 symbols in the above sequence.

:. Required answer

12 + 4 = 16

12.(4) Letter Digit Letter

Such combinations are:

1870 ; D9Z ; P2M

Thus, there are three such digits each of which is immediately preceded as well as followed by letters.

13.(3) Letters between 'C' and '5' DZYPMKS

Middle Letter 14.(2) The digits already present in the sequence:

7, 9, 2, 3 and 5.

There are four symbols.

Required answer

= 1 + 2 + 3 + 4 + 5 + 6 + 7 +8 + 9

15.(4) 7th to the left of 8th element from the right means 15th from the right or 7th from left. But 7th from the left interchanges place with the fourth from the left. Therefore, required answer will be 'C'.

21. (3) First Premise is Universal Affirmative (A-type).

> Second Premise is Particular Affirmative (I-type).

Third Premise is Universal Negative (E-type).

No house is tree.

Some trees are birds.  $E + I \Rightarrow O_1$ -type conclusion "Some birds are not house" Conclusion II is converse of the first Premise.

22. (2) First and Third Premises are Universal Affirmative (A-type). Second Premise is Particular Affirmative (I-type).

Some tigers are horses.

All horses are jackals.  $I + A \Rightarrow I$ -type Conclusion "Some tigers are jackals". Conclusion I is the converse of this derived conclusion.

23. (4) First and third Premises are Particular Affirmative (I-type). Second Premise is Universal Affirmative (A-type). Some pens are tables.

All tables are inks.

I + A ⇒ I-type Conclusion "Some pens are inks." Conclusion III is converse of this derived conclusion.

24. (5) All the three Premises are Universal Affirmative (A-type). All pens are vegetables.

> All vegetables are rains.  $A + A \Rightarrow A$ -type Conclusion "All pens are rains". This is the Conclusion II. All fruits are vegetables.

All vegetables are rains. A/+ A ⇒ A-type Conclusion "All pens are rains". This is the Conclusion I. Conclusion III is converse of the third Premise.

25. (4) All the three Premises are Particular Affirmative (I-type). We know that no conclusion follows from the Particular Premises.

Conclusions I and III form Complementary Pair. Therefore, either I or III follows.

(26-30):

(i) '@ AB' ⇒ A ≯ B. Therefore,  $A \leq B$ . (ii) 'AB@' ⇒ A ≮ B. Therefore,  $A \ge B$ . (iii) 'ABS'  $\Rightarrow$  A  $\Rightarrow$  B and A  $\triangleleft$  B Therefore, A = B. (iv) ' $\bigstar$  A B'  $\Rightarrow$  A  $\Rightarrow$  B and A  $\neq$  B. Therefore, A < B. (v) 'AB $\star$ '  $\Rightarrow$  A  $\star$  B and A $\neq$  B. Therefore, A > B.

26.(4) Statements

 $\star LU \Rightarrow L < U$ .

 $U G \star \Rightarrow U > G$ .

 $GS@\Rightarrow G\geq S$ 

Thus,  $L < U > G \ge S$ 

Conclusions

I. L S  $\star \Rightarrow$  L > S : Not true. II.  $\star$  G L  $\Rightarrow$  G < L : Not true.

27.(5) Statements

 $@AU \Rightarrow A \leq U$ 

 $UL$ \Rightarrow U = L$ 

 $JL \star \Rightarrow J > L$ 

Thus,  $A \le U = L < J$ 

#### Conclusions

I.  $J A \star \Rightarrow J > A$ : True

II.  $JU \star \Rightarrow J > U$ : True

#### 28.(1) Statements

 $@ C S \Rightarrow C \leq S$ 

 $\star SD \Rightarrow S < D$ 

 $D M \star \Rightarrow D > M$ 

Thus,  $C \le S < D > M$ 

#### Conclusions

I. D C  $\star \Rightarrow$  D > C : True

II. S M  $\star \Rightarrow$  S > M : Not true

#### 29.(3) Statements

 $\star YG \Rightarrow Y < G$ 

 $G H @ \Rightarrow G \ge H$ 

 $HR$ \Rightarrow H = R$ 

Thus,  $Y < G \ge H = R$ 

#### Conclusions

I.  $R G \$ \Rightarrow R = G : Not true$ 

II.  $\star RG \Rightarrow R < G$ : Not true However, R is either smaller than or equal to G.

30.(2) Statements

 $PQ@\Rightarrow P\geq Q$ 

 $DP \star \Rightarrow D > P$ 

 $SDS \Rightarrow S = D$ 

Thus,  $S = D > P \ge Q$ 

#### Conclusions

I.  $S P S \Rightarrow S = P$ : Not true

II.  $SP \star \Rightarrow S > P$ : True

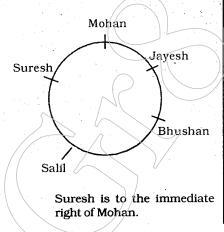
36. (5) From both the statements it is clear that P has two sisters T and V.

37. (4) From both the statements

over (and) again → ka (ja) ha

come (and) go → (ja) pa na

38. (5) From both the statements



39. (5) From statement I

D is sister-in-law of N.

#### From statement II

K is husband of D's sister.

40. (4) From both the statements

M > J. R

R. M > K

46.(5) Delicious signifies Taste.

Similarly, Melody signifies Voice.

47.(5)

PSICHOLAZY  $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$ 

0 1 2 3 4 5 6 7 8/9

Thus, 8 7 5. 5 0

 $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$ 

Z A O. O P

49.(5)

50.(1) E X T R A

A, E

51. (1) Let the odd number be

2n + 1,  $(n \le 4)$ .  $\therefore$  Even number = 2n-4

 $\Rightarrow \frac{2n+1}{2n-4} = \frac{5}{8}$ 

**53.** (2) Let the numbers be x and y.

Then,  $\frac{x}{4} \times \frac{2}{3} = 40\%$  of y

 $\Rightarrow \frac{x}{6} = \frac{2}{5}y \Rightarrow \frac{x}{u} = \frac{12}{5}$ 

 $\Rightarrow x = 2.4y$ 

**54.** (1) From statement (1),

If breadth of rectangle be  $x \, \text{cm}$ , length = 16x

 $\therefore 16x \times x = (8)^2 \Rightarrow x = 2$ 

: Length = 32 cm.

From statement (2),

If breadth =  $\sqrt{2}$  cm

Length =  $32\sqrt{2}$  cm

Hence, area of rectangle = area of square.

Clearly, these two statements are definitely true,

56.(5) Let Abhijit invested Rs. 2x,

Rs. 3x and Rs. 4x in three schemes A, B and C respectively.

:. The required ratio

 $=2x\times\frac{120}{100}3x\times\frac{116}{100}4x\times\frac{115}{100}$ 

 $= 2 \times 120 : 3 \times 116 / 4 \times 115$ 

= 60: 87:115

**57.**(1) Total number of persons

= 3 girls + 4 boys = 7

The girls always sit together. Considering three girls as one person, we have 5 persons who can be arranged in 5! ways. But corresponding to each way of these arrangements, the girls can be arranged together in 3! ways.

Hence, required number of ways =  $5! \times 3! = 120 \times 6 = 720$ 

58.(3) There are 7 letters in the word 'DRASTIC' including 2 vowels (A,I) and 5 consonants (D,R,S,T,C,). Considering two vowels as one letter, we have 6 letters which can be arranged in 6! ways. But corresponding to each way of these arrangements, the vowels can be put together in 2! ways.

59.(5) Number of pieces

 $=32 \times 145 + 25$ 

= 4640 + 25 = 466560.(2) Decimal equivalent of:

 $\frac{7}{8} = 0.875$ ;

Clearly.

0.85 < 0.87 < 0.875 < 0.89

 $\therefore \frac{11}{13} < \frac{13}{15} < \frac{7}{8} < \frac{8}{9}$ 

66. (4) Taking all statements together, Let the profit earned by company in 2001 = Rs. x and in 2002

 $\therefore$  Profit earned in 2003 = 1.4x,

x + y = Rs. 20 crore ...(i)

From statement III,

$$\Rightarrow x = \frac{4}{5} \times \frac{1}{1.4} y$$

$$= \frac{4}{7} y \qquad \dots (ii)$$

From equations (i) and (ii), we can get the required profit.

68. (2) From statement I,

Observer = Assistant + Rs. 12000 ....(i)

...(ii)

...(iii)

From statement II,

Observer + Assistant

= Rs. 32000

From statement III,

Manager + Observer

= Rs. 57000

We can find the salary of an assistant from equations (i) and (ii)

70. (1) From statements I and III we can get the share of B in the profit.

71.(3) Number of employees in public relations department in :

Scale I = 175

Scale II = 150

Difference = 175 - 150 = 25

.. Required percentage

$$=\frac{25}{175}\times100 = 14.285 \approx 14.29$$

72.(5) Number of employees in personnel department

= 489

Number of employees in Scale II = 120

.. Required percentage

$$=\frac{120}{489}\times100$$

$$\approx \frac{120}{500} \times 100$$

≈ 24 ≈ 25

73.(2) Total number of scale IV employees = 40 + 126 + 144 + 60 + 30 + 50 = 450

. Required percentage

$$=\frac{126\times100}{450}=28$$

74,(1) Number of employees in scale

Number of employees in scale

$$= 40 + 126 + 144 + 60 + 30 + 50$$

... Required ratio = 950: 450

= 19:9

75.(4) Total number of employees in scale I

> = 225 + 725 + 750 + 300 +325 + 175 = 2500

Total number of employees in scale VI.

= 4 + 20 + 28 + 15 + 8 + 5 = 80

76.(5) ·· If Rs. 92 is the S.P., the Marked Price is Rs. 100.

∴ If Rs. 17,940 is the S.P., the Marked Price

$$= \frac{100}{92} \times 17940 = \text{Rs. } 19,500$$

Now, Cost Price

$$= 17940 \times \frac{100}{100 + 19.6}$$

$$= 17940 \times \frac{100}{119.6} = \text{Rs. } 15,000$$

If there is no discount S.P. = Rs. 19,500

$$\% \text{ Profit} = \frac{19,500 - 15000}{15000} \times 100$$

$$=\frac{4500}{15000}\times100=30\%$$

. 77.(4) Part (1)

$$(24 + 12)(24 - 12) + 112 \times \frac{1}{14}$$
  
=  $36 \times 12 + 8 = 432 + 8$ 

= 440

Part (3)

$$15 \times 28 + 20 = 420 + 20$$
  
= 440

$$432 + 56 \times \frac{1}{8} = 432 + 7 = 439$$

Part (5) 
$$185 \times 6 \times \frac{1}{2} - 23 \times 5$$

= 555 - 115 = 440

Obviously, Part (4) is not equal to the other four parts.

78.(1) The corresponding equation

18:  

$$2x^2 + x - 3 = 0$$
  
 $\Rightarrow 2x^2 + 3x - 2x - 3 = 0$ 

$$\Rightarrow x (2x + 3) - 1 (2x + 3) = 0$$

$$(2x + 3) (x - 1) = 0$$

$$\therefore x = \frac{-3}{2} \text{ or } 1.$$

So, the sign scheme for the expression  $2x^2 + x - 3$  is as

$$\frac{1}{2}$$

So, for  $\frac{-3}{2} < x < 1$ ,  $2x^2 + x - 3 < 0$ .

79.(4) Taking approximate values.

$$? = \sqrt{625} \times 17 + 136 \div 17$$

$$= 25 \times 17 + 136 \times \frac{1}{17}$$

$$= 25 \times 17 + 23 \times 1$$
  
=  $425 + 8 = 433$ 

80.(2) Total no. of balls

$$= 2 + 3 + 2 = 7$$

: Exhaustive no. of cases n(S)

$$= {}^{7}C_{2} = \frac{7 \times 6}{2} = 21$$

Now, the drawn balls must not be blue.

. 2 balls can be selected from 2 red + 3 green = 5 balls in5<sub>C2</sub> ways.

.. Favourable no. of cases n(E)

$$=5_{C_2}=\frac{5\times 4}{2}=10$$

.. Required Probability

$$=\frac{n(E)}{n(S)}=\frac{10}{21}$$

81. (1) A : B : C = 8 : 14 : 22

= 12 : 21: 33

B:C:D=12:21:33

.: A : B : C : D

= 12:21:33:44

82. (2) Share of 1 grandchild

$$=\frac{1}{10} \times 1.25 = \text{Rs. } 0.125 \text{ lakh}$$

 $\therefore$  Each son gets =  $8 \times 0.125$ 

= Rs. 1 lakh

∴ Share of 3 sons = Rs. 3 lakhs Share of 2 daughters =  $2 \times 1.25$ = Rs. 2.5 lakhs

Total share of sons and daugh-

= Rs. 5.5 lakhs

 $\therefore$  Wife's share =  $\frac{2}{5} \times 5.5$ 

Share of three grandchildren

- $= 3 \times 0.125 =$ Rs. 0.375 lakh
- .: Required answer
- = Rs. (2.2 + 0.375) lakh
- = Rs. 2.575 lakhs
- = Rs. 257500
- **83.** (3) Let the number of books distributed by a man, a woman and a child per day be 5x, 4x and 2x respectively

Books distributed on the first day

- $= 7 \times 5x + 5 \times 4x + 8x \times 2x$
- =35x + 20x + 16x = 71x

Book distributed on the second day

- $= 7 \times 5x + 3 \times 4x + 5 \times 2x$
- = 35x + 12x + 10x = 57x

Books distributed on the third day

- $= 4 \times 5x + 5 \times 4x + 3 \times 2x$
- = 46x
- $\therefore 71x + 57x + 46x = 2000$
- $\Rightarrow 174x = 2000$

$$\therefore 57x = \frac{2000}{174x} \times 57x \approx 650$$

- **84.** (2) Let the average runs scored by 6 batsmen = x
  - $\therefore$  Total runs scored by them = 6xThen.

$$6x + x + 30 = 310$$

- $\Rightarrow 7x = 280$
- $\Rightarrow x = 40$
- $\therefore$  Score of captain = 40 + 30
- = 70
- **85.** (1) Let the height of the triangle he x cm

∴ Radius of circle = 
$$\frac{6}{5}x$$
 cm

Then

$$\pi \times \left(\frac{6}{5}x\right)^2 = \frac{1}{2} \times 36 \times x$$

$$1.44\pi x = 18$$

$$\Rightarrow x = \frac{18}{1.44\pi}$$

- :. Area of circle
- = Area of triangle = 18x

$$= \frac{18 \times 18}{1.44 \times \pi} = \frac{18 \times 18 \times 7}{1.44 \times 22} = 72 \text{ cm}^2$$

91.(4) Total no of students in institute G

= 840

No. of Science students = 182

: Required percentage

$$= \frac{182}{840} \times 100 = 21\frac{2}{3}$$

- **92.**(5) Total no. of students in institute D
  - = 165 + 138 + 245 + 66 + 36
  - = 647

No. of Management students

- = 36
- .: Required Percentage

$$=\frac{36}{647}\times100=5.5\%$$

**93.**(1) Number of students studying Art in institutes A, B and C

= 365

Number of students studying Commerce in institutes D, E, F and G

- = 138 + 196 + 212 + 206
- = 752
- .. Required Percentage

$$=\frac{365}{752}\times100\approx48.5\%$$

94.(4) Total no. of Engineering students in all institutes

No. of Engineering students in institute C = 164

. Required Percentage

$$= \frac{164}{821} \times 100 = 20.97 \approx 21$$

95.(3) Total no. of students in

$$B = 96 + 152 + 198 + 157 + 147$$

- C = 144 + 235 + 110 + 164 +
- C = 144 + 235 + 110 + 164 127 = 780
- D = 165 + 138 + 245 + 66 + 36= 647
- 017
- E = 215 + 196 + 287 + 86 + 66
- = 850
- F = 184 + 212 + 195 + 112 + 97
- = 000
- G = 225 + 206 + 182 + 138 + 89

Comparing the total no. of students and respective Commerce students we see that required percentage is maximum in institute C'. 96.(4) When a train crosses a platform it covers a distance equal to the sum of lengths of platform and the train itself. If the length of train be x metres, then Speed of train

$$=\frac{x+300}{38}$$
 m/sec ....(i)

When the train crosses a signal post it covers its own length.

: Speed of train

$$= \frac{x}{18} \text{ m/sec} \qquad \dots \text{(ii)}$$

From equations (i) and (ii)

$$\frac{x+300}{38} = \frac{x}{18}$$

- $\Rightarrow 38x 18x$
- ₱ 300 × 18
- $\Rightarrow 20x = 300 \times 18$

$$\Rightarrow x = \frac{300 \times 18}{20}$$

**= 27**0 metres

$$\therefore \mathbf{Speed of train} = \frac{270}{18}$$

=15m/sec.

$$=15\times\frac{18}{5}=54 \text{ kmph}$$

**97.**(5) 
$$2x + 5y = 109$$
 ....(i)

$$2x + 5 = y + 12$$

$$\Rightarrow 2x - y = 12 - 5$$

$$\Rightarrow 2x - y = 7$$
 ....(ii)

On subtracting equation (ii) from (i),

$$2x + 5y - (2x - y) = 109 - 7$$

$$\Rightarrow 2x + 5y - 2x + y = 102$$

$$\Rightarrow$$
 6y = 102

$$\Rightarrow y = \frac{102}{6} = 17$$

From equation (ii),

$$2x - 17 = 7$$

$$\Rightarrow 2x = 24$$

$$\Rightarrow x = 12$$

$$y - x = 17 - 12 = 5$$

**98.**(3) (1) 
$$\rightarrow$$
 45 × 12 + 60

$$= 540 + 60 = 600$$

(2) 
$$\rightarrow$$
 80% of 800 – 40

$$=\frac{80\times800}{100}-40$$

$$= 640 - 40 = 600$$

(3) 
$$\rightarrow \frac{3}{5}$$
 of 1200 - 150

$$= \frac{3}{5} \times 1200 - 150$$
$$= 720 - 150 = 570$$

$$(4) \to \frac{1260}{3} + 180$$

= 600

$$(5) \to \frac{8640}{16} + 60$$

= 600

**99.**(4) Let the breadth of the rectangle be x cms.

 $\therefore$  Length = (x + 3) cms.

Now, 2(x + x + 3) = 50

$$\Rightarrow 2x + 3 = 25$$

 $\Rightarrow 2x = 22$ 

$$\Rightarrow x = \frac{22}{2} = 11$$

.. Breadth = 11cms.

and length = x + 3 = 11 + 3

= 14 cms.

.. Area of circle = Area of rectangle

$$\Rightarrow \pi r^2 = 14 \times 11$$

$$\Rightarrow r^2 = \frac{14 \times 11 \times 7}{22}$$

 $\Rightarrow r = 7 \text{ cms}.$ 

.. Diameter = 14 cms.

**100.**(4) Let the numbers be x and y respectively. Then,

$$\frac{3}{4}x = 60\% \text{ of } y$$

$$\Rightarrow \frac{3}{4}x = \frac{60}{100}y$$

$$\Rightarrow \frac{3}{4}x = \frac{3}{5}y$$

$$\Rightarrow y = \frac{3}{4} \times \frac{5}{3} x = \frac{5}{4} x$$

$$\therefore y - x = \frac{5}{4}x - x = \frac{x}{4}$$

Clearly, no unique answer is possible.

166.(4) "Both official and corporate India has always been allergic to any mention of clean technology". This is what is said in the first paragraph of the passage. Clearly the answer is (4).

167.(4) "\_\_\_\_\_further crop failure will amount to a life and death question for many Indians".

Though "dwindling agricultural yield" (option 5) "failure in crops" (option 4), both can be choosen, so far the meaning and implications are concerned. But as there is direct mention, so we must choose option (4).

- 168.(2) "The increase in premature deaths will have adverse social and economic consequences and a rise in morbidities will place an unbearable burden on our crumbling health system".

  So the answer is (2).
- 169.(1) Profligacy is extravagance and wastefulness: the continuing profligacy of certain States. So the answer is (1). The meaning the word profligacy bears in the passage also supports this contention.
- 171.(3) "Most mechanical two wheelers roll off the assembly line without proper pollution control system". This shows that two wheeler industry is not adequately concerned about pollution control systems in the vehicles.
- 172.(4) "Two expressions can be considered in this respect:
  - (1) skeptics might question the timing of the haze report.

(2) U.N. environment report will likely to find a place in the U.S. arsenal \_\_\_\_\_.

This shows the passage indicates that the U.S. wants to use it as a handle against the developing countries in the forthcoming meet.

173.(2) • If you are allergic to something, you become ill or get a rash when you eat it, smell it, or touch it.

For example,

I am allergic to cat.

• If you have an **allergic** reaction to something, you become ill or get a rash when you eat it, smell it, or touch it

• If you say that you are allergic to something or someone, you mean that you dislike them very strongly and try to avoid them.

For example,

He was allergic to risk.

The word similar in meaning to allergic is dispassionate.

- sentence to the passage mentions some indicators. "Radically changing monsoon patterns" is one among them. So, option (5) is the answer.
- 175.(3) The concluding sentence is worth considering in this respect. "We realise that we are all in this together and that pollution any where should be a global concern otherwise

Irrespective of its point of origin, pollution is a concern for all. So, we must fight pollution together. This is the message of this passage.

179.(1) **Dubious** (Adjective) means (i)
not certain and slightly
suspicious about something;
doubtful; (ii) probably
dishonest or risky; (iii) of
which the value is doubtful.
So, the word **unquestionable**is the only option that can be
considered as the antonym of **dubious**.

(196-200): The correct sequence of the sentences will be:

CAFBED

- **196.**(4) The word 'sparingly' should be replaced with rarely.
- 197.(1) The word 'Countrary' is wrongly spelt. The correct spelling is 'contrary'.
- 198.(2) The word 'enterprize' is wrongly spelt. The correct spelling is 'enterprise'.
- 200.(3) The word 'panerama' is wrongly spelt. The correct spelling is 'panorama'. which means a view of a wide area, a view of a constantly changing scene or series of events.

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