

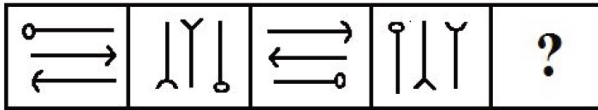
REASONING ABILITY

1. Which two signs should be interchanged in the following equation to make it correct?  
 $18 + 6 - 6 \div 3 \times 3 = 6$   
 (a) + and - (b) + and  $\div$   
 (c) - and  $\div$  (d) + and  $\times$

2. Arrange the following words in a logical and meaningful order

- |                 |              |
|-----------------|--------------|
| 1. medicine     | 2. Diagnosis |
| 3. Prescription | 4. Illness   |
| 5. Recovery     | 6. Doctor    |
- (a) 4, 6, 2, 3, 1, 5 (b) 4, 6, 1, 3, 2, 5  
 (c) 2, 6, 4, 1, 3, 5 (d) 4, 6, 3, 2, 1, 5

3. Select the figure that will come next in the following figure series ;



- (a) (b)   
 (c) (d)

4. Three of the following four numbers are alike in a certain way and one is different. Pick the number that is different from the rest.

- (a) 12 (b) 14  
 (c) 56 (d) 30

5. If BACK is coded as 11312 and CAKE is coded as 51113, then how will MADE be coded as ?

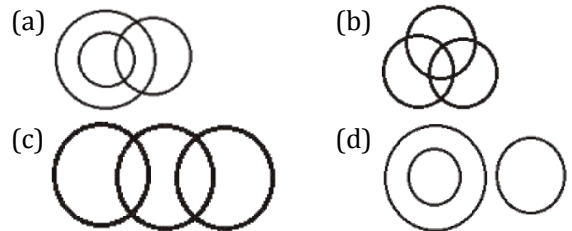
- (a) 51413 (b) 54113  
 (c) 31145 (d) 13145

6. Select the number-pair in which the two numbers are related in the same way as are the two numbers of the following number-pair

4 : 32

- (a) 8 : 248 (b) 5 : 62  
 (c) 10 : 160 (d) 6 : 108

7. Select the venn diagram that best illustrates the relationship between the following classes  
 Parents, Rich Persons, Farmers



8. In a code language, TEMPLE is written as DKOLDS. How will WORSHIP be written as in that language?  
 (a) OHGRQNV (b) VNQGHOR  
 (c) QJITSPX (d) OGHQRVN

9. P is the father of Q and the grandfather of R, who is the brother of S. S's mother, T, is married to V. T is the sister of Q. How is V related to P?

- (a) Nephew (b) Brother-in-law  
 (c) Son (d) Son-in-law

10. Which number will replace the question mark (?) in the following series?

2, 5, 11, 23, 44, ?

- (a) 77 (b) 51  
 (c) 63 (d) 66

11. 'Action' is related to 'Reaction' in the same way as 'Stimulus' is related to '\_\_\_\_\_'.  
 (a) Reception (b) Vision  
 (c) Response (d) Feedback

12. Select the option in which the given figure is embedded



- (a) (b)   
 (c) (d)

13. Two different positions of the same dice are shown. Which number will be at the top if 6 is at the bottom?



- (a) 1  
(c) 2
- (b) 3  
(d) 4
14. Three of the following four letter-clusters are alike in a certain way and one is different. Select the odd one out.

(a) DGEF  
(c) TWUV

(b) HNLJ  
(d) MPNO

15. Select the combination of letters that when sequentially placed in the gaps of the given letter series will complete the series.

ac\_d\_b\_cbdd\_a\_bddb

(a) bdabc  
(c) bdcab

(b) bdbca  
(d) cbdbc

16. Two statements are given followed by three conclusions numbered I, II and III assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

**Statements:**

Some cars are vehicles

No vehicle is a four-wheeler

**Conclusions:**

I. No car is a four-wheeler

II. All four wheeler are cars

III. Some vehicles are cars

- (a) Only conclusions I and II follow  
(b) All conclusions follows  
(c) only conclusion III follow  
(d) Only conclusion I follow

17. Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.

BECD : YVXW :: DGEF : ?

(a) VRTS  
(c) WUTV

(b) WTVU  
(d) XUWV

18. Select the set in which the numbers are related in the same way as are the numbers of the following set

(7, 13, 21)

(a) (12, 18, 25)  
(c) (9, 16, 25)

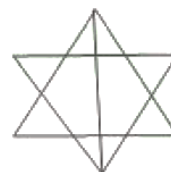
(b) (17, 22, 30)  
(d) (2, 8, 16)

19. Find out the odd word/letters/number/number pair from the given alternatives

(a) Crane  
(c) Toucan

(b) Potoo  
(d) Bull

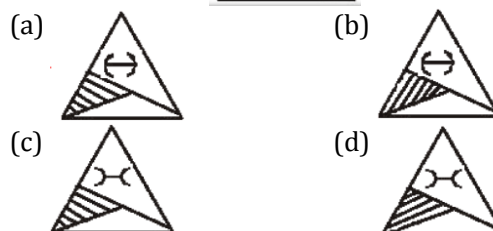
20. How many triangles are there in the following figure?



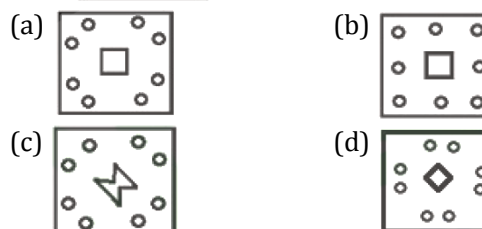
(a) 14  
(c) 20

(b) 18  
(d) 16

21. Select the correct mirror image of the given figure when the mirror is placed to the right of the figure.



22. A paper is folded and cut as shown below. How will it appear when unfolded?



23. Select the word-pair in which the two words are related in the same way as are the two words in the following word pair

Heat : Sun

(a) Home : Terrace  
(c) Atmosphere : Humidity

(b) Ride : Car  
(d) Vitamin : Fruit

24. Select the set in which the numbers are related in the same way as are the numbers of the following set

(10, 18, 38)

(a) (4, 12, 22)  
(c) (12, 22, 46)

(b) (14, 12, 8)  
(d) (18, 6, 14)

25. 10 years ago, a father's age was  $3\frac{1}{2}$  times that of his son, and 10 yrs from now, the father's age will be  $2\frac{1}{4}$  times that of the son. What will be the sum of the ages of the father and the son at present?

(a) 100 yrs  
(c) 115 yrs

(b) 110 yrs  
(d) 120 yrs

## GENERAL AWARENESS

26. Which of the following Biosphere Reserves was the first to be established by the Government of India?  
(a) Gulf of Mannar Biosphere Reserve  
(b) Nilgiri Biosphere Reserve  
(c) Nanda Devi Biosphere Reserve  
(d) Sundarbans Biosphere Reserve
27. \_\_\_\_\_ is a group folk dance of Sikkim performed in honour of Mount Khangchendzonga, the guardian deity of the Sikkimese people  
(a) Zo-Mal-Lok  
(b) Tendong Lo Rum Faat  
(c) Chu-Faat  
(d) Kinchum-Chu-Bomsa
28. The ideal of residual powers in Indian constitution has been taken from the constitution of  
(a) south africa (b) canada  
(c) japan (d) USA
29. Name the pass in Uttarakhand which is used by pilgrims to kailash-Mansarovar yatra  
(a) Pensi La (b) Lipu Lekh  
(c) Banihal pass (d) Khardung La
30. Buckminsterfullerene is an allotrope of  
(a) Boron (b) iron  
(c) Phosphorus (d) Carbon
31. Name the first ever female prime minister in the world.  
(a) Indira Gandhi  
(b) Sirimavo Bandaranaike  
(c) Golda meir  
(d) Elisabeth Domitien
32. Which panel set up by the Government of India suggested total decontrol of the sugar industry?  
(a) RamSevak Panel (b) Rangarajan panel  
(c) Radheshyam panel (d) Sri Krishna panel
33. In India, the project tiger was started in\_\_\_\_\_.  
(a) 1979 (b) 1973  
(c) 1992 (d) 1982
34. Who was the first ever female secretary general of SAARC (South Asian Association) for Regional Cooperation)  
(a) Antonio Guterres  
(b) Fathimath Dhiyana Saeed  
(c) Jeremiah Nyamane Kingsley  
(d) Madeleine Albright
35. Which of the following states passed the maintenance of Household registers bill in march 2019?  
(a) Assam (b) Mizoram  
(c) West Bengal (d) Odisha
36. Which of the following Public Sector Undertakings was accorded the Maharatna status in February 2013?  
(a) BHEL (b) ONGC  
(c) OIL (d) CIL
37. \_\_\_\_\_ is the traditional musical instrument of the Limboo community of Sikkim.  
(a) Chyap-Brung (b) Jeurum Silly  
(c) Naumati (d) Chutkay
38. How many great powers (Mahajanpadas) existed in the 7<sup>th</sup> and early 6<sup>th</sup> centuries BC, during the life time of Lord Gautam Buddha?  
(a) 16 (b) 13  
(c) 11 (d) 17
39. Which of the following has a strong fruity fragrance?  
(a) Methyl chloride (b) Methanoic acid  
(c) Methanol (d) Ethyl Acetate
40. Name the gland that controls the functioning of other endocrine glands.  
(a) Pancreas (b) Pituitary gland  
(c) Rineal gland (d) Adrenal Gland
41. Which team won the Ranji Trophy Final 2017?  
(a) Punjab (b) Mumbai  
(c) Vidarbha (d) Delhi
42. Name the first Indian budget carrier to join the international Air transport Association (IATA).  
(a) Indigo (b) Spice jet  
(c) Go Air (d) Jet Airways
43. Which of the following is an aldehyde?  
(a) Propanal (b) Propanol  
(c) Propanone (d) Propine
44. In march 2019, social media platforms and the Internet and Mobile Association of India (IAMAI) presented a \_\_\_\_\_ for the General election 2019 to the Election Commission of India.  
(a) centre of Voting List  
(b) Detailed to Do list  
(c) precautionary Code  
(d) Voluntary code of Ethics
45. Who was the founder of the Chalukya dynasty?  
(a) Narasimhavarman (b) Mangalesa  
(c) Kirtivarman (d) Pulakesin I
46. Which of the following Articles of the Constitution of India deals with the Uniform Civil Code?  
(a) Article 43 (b) Article 44  
(c) Article 45 (d) Article 46

47. The special Olympics world Games 2019 was inaugurated at \_\_\_\_\_.  
 (a) Austria (b) Germany  
 (c) Sweden (d) Abu Dhabi
48. Which of the following is the first working prototype of Internet?  
 (a) APNET (b) ANET  
 (c) PANET (d) ARPANET

49. Which of the following is NOT one of the monarchical states that existed in the 7<sup>th</sup> and early 6<sup>th</sup> centuries BC in India?  
 (a) Magadha (b) Vaishali  
 (c) Avanti (d) Kosala
50. Name the state Chandragupta-I got in dowry from the Lichhavis.  
 (a) Ujjain (b) Pataliputra  
 (c) Prayaga (d) Saketa

## QUANTITATIVE APTITUDE

51. If the 8-digit number  $789x531y$  is divisible by 72, then the value of  $(5x - 3y)$  is  
 (a) 0 (b) -1  
 (c) 2 (d) 1
52. The income of Raju is 20% more than his expenditure. If his income increases by 60% and his expenditure increases by 70%, then by what percent does his savings increase/decrease?  
 (a) it decreases by 10% (b) It decreases by 2%  
 (c) it increases by 10% (d) It increases by 2%
53. A triangle ABC is inscribed in a circle with centre O. AO is produced to meet the circle at K and  $AD \perp BC$ . If  $\angle B = 80^\circ$  and  $\angle C = 64^\circ$ , then the measure of  $\angle DAK$  is  
 (a)  $10^\circ$  (b)  $16^\circ$   
 (c)  $12^\circ$  (d)  $20^\circ$
54. If  $\cos \theta = \frac{2p}{1+p^2}$ , then  $\tan \theta$  is equal to  
 (a)  $\frac{p^2}{1+p^2}$  (b)  $\frac{2p}{1-p^2}$   
 (c)  $\frac{1-p^2}{1+p^2}$  (d)  $\frac{1-p^2}{2p}$
55. The table shows the production of different types of cars (in thousands)

Year Cars	2013	2014	2015	2016	2017
A	35	40	48	50	36
B	39	45	54	60	72
C	52	25	32	54	45
D	50	42	45	46	47
E	36	46	42	48	55

- If the data regarding the production of cars of type B is represented by a pie-chart, then the angle of the sector representing the production of cars in 2016 will be  
 (a)  $80^\circ$  (b)  $96^\circ$   
 (c)  $60^\circ$  (d)  $72^\circ$

56. The table shows the production of different types of cars (in thousands)

Year Cars	2013	2014	2015	2016	2017
A	35	40	48	50	36
B	39	45	54	60	72
C	52	25	32	54	45
D	50	42	45	46	47
E	36	46	42	48	55

- The total production of cars of type B in 2013, 2014, 2015 and 2017 taken together is what percent less than the total production of all types of cars in 2017? (Correct to one decimal place)  
 (a) 18.2 (b) 18.4  
 (c) 15.8 (d) 17.6
57. If  $0^\circ < \theta < 90^\circ$  and  $\cos^2 \theta = 3(\cot^2 \theta - \cos^2 \theta)$  then the value of  $\left(\frac{1}{2} \sec \theta + \sin \theta\right)^{-1}$  is  
 (a)  $\sqrt{3} + 2$  (b)  $2(2 - \sqrt{3})$   
 (c)  $2(\sqrt{3} - 1)$  (d)  $\sqrt{3} + 1$
58. If  $16x^2 + 9y^2 + 4z^2 = 24(x - y + z) - 61$ , then the value of  $(xy + 2z)$  is  
 (a) 1 (b) 2  
 (c) 3 (d) 5
59. If  $x + y + z = 19$ ,  $xy + yz + zx = 114$ , then the value of  $\sqrt{x^3 + y^3 + z^3 - 3xyz}$  is  
 (a) 21 (b) 17  
 (c) 19 (d) 13
60. In  $\triangle ABC$ ,  $AD \perp BC$  and  $BE \perp AC$ . AD and BE intersect each other at F. If  $BF = AC$ , then the measure of  $\angle ABC$  is  
 (a)  $45^\circ$  (b)  $60^\circ$   
 (c)  $70^\circ$  (d)  $50^\circ$
61. Two circles of radii 10 cm and 8 cm intersect at the points P and Q. If  $PQ = 12$  cm, and the distance between the centres of the circles is x cm. The value of x (correct to one decimal place) is  
 (a) 13.9 (b) 14.8  
 (c) 13.3 (d) 12.8

62.  $\left(\frac{\sin\theta - 2\sin^3\theta}{2\cos^3\theta - \cos\theta}\right)^2 + 1$ ,  $\theta \neq 45^\circ$ , is equal to  
 (a)  $\operatorname{cosec}^2\theta$  (b)  $\sec^2\theta$   
 (c)  $\cot^2\theta$  (d)  $2\tan^2\theta$

63. The table shows the production of different types of cars (in thousands)

Year Cars	2013	2014	2015	2016	2017
A	35	40	48	50	36
B	39	45	54	60	72
C	52	25	32	54	45
D	50	42	45	46	47
E	36	46	42	48	55

The ratio of the total production of cars of type C and E taken together in 2013 to the total production of cars of type D in 2014 and 2016 and type E in 2017 taken together is

- (a) 8 : 13 (b) 5 : 8  
 (c) 13 : 32 (d) 8 : 11
64. if  $[8(x + y)^3 - 27(x - y)^3] \div (5y - x) = Ax^2 + Bxy + Cy^2$ , then the value of  $(A + B + C)$  is  
 (a) 26 (b) 19  
 (c) 16 (d) 13
65. A takes 30 minutes more than B to cover a distance of 15 km at a certain speed. But if A doubles his speed, he takes one hour less than B to cover the same distance. What is the speed (in km/h) of B?  
 (a) 6 (b) 5  
 (c)  $6\frac{1}{2}$  (d)  $5\frac{1}{2}$
66. The value of  $5 \div 5$  of  $5 \times 2 + 2 \div 2$  of  $2 \times 5 - (5 - 2) \div 6 \times 2$  is  
 (a)  $\frac{9}{5}$  (b)  $\frac{19}{10}$   
 (c) 19 (d)  $\frac{23}{2}$
67. If  $x$  is subtracted from each of 23, 39, 32 and 56, the numbers so obtained, in this order, are in proportion. What is the mean proportional between  $(x + 4)$  and  $(3x + 1)$ ?  
 (a) 15 (b) 10  
 (c) 12 (d) 14
68. The marked price of an article is Rs 315. it is sold for Rs 288. if there is a loss of 4%, then by what percent above the cost is article marked?  
 (a) 5 (b) 8  
 (c)  $6\frac{1}{2}$  (d)  $5\frac{1}{2}$
69. The ratio of the efficiencies of A, B and C is 4 : 5 : 3. Working together, they can complete that work in 25 days, A and C together will complete 35% of that work in  
 (a) 12 days (b) 10 days  
 (c) 18 days (d) 15 days

70. The compound interest on a certain sum in  $2\frac{1}{2}$  years at 10% p.a. interest compounded yearly is Rs 1,623. The sum is  
 (a) Rs 5000 (b) Rs 6000  
 (c) Rs 6500 (d) Rs 7200

71.  $\triangle ABC$  is similar to  $\triangle DEF$ . The area of  $\triangle ABC$  is  $100 \text{ cm}^2$  and the area of  $\triangle DEF$  is  $49 \text{ cm}^2$ . If the altitude of  $\triangle ABC = 5 \text{ cm}$ , then the corresponding altitude of  $\triangle DEF$  is  
 (a) 7 cm (b) 4.5 cm  
 (c) 6 cm (d) 3.5 cm

72. Renu bought an article for Rs 1,240 and sold it at a loss of 25%. With this amount, she bought another article and sold it at a gain of 40%. Her overall percentage profit is  
 (a) 12 (b)  $6\frac{2}{3}$   
 (c) 5 (d) 15

73. How much iron sheet (in  $\text{m}^2$ ) will be needed to construct a rectangular tank measuring  $10 \text{ m} \times 8 \text{ m} \times 6 \text{ m}$ , if a circular opening of radius one metre is to be left at the top of the tank ? (correct to one decimal place)  
 (a) 371.6 (b) 370.4  
 (c) 372.9 (d) 370.8

74. The table shows the production of different types of cars (in thousand)

Year Cars	2013	2014	2015	2016	2017
A	35	40	48	50	36
B	39	45	54	60	72
C	52	25	32	54	45
D	50	42	45	46	47
E	36	46	42	48	55

The production of cars of type A in 2015 and of type C in 2013 taken together is approximately what percent of the total production of cars type D in five years ?

- (a) 40.2 (b) 42.4  
 (c) 43.5 (d) 42.8
75. The average weight of a certain number of students in a class is 68.5 kg. if 4 new students having weights 72.2 kg, 70.8 kg, 70.3 kg and 66.7 kg join the class, then the average weight of all the students increases by 300 g. The number students in the class, initially is :  
 (a) 21 (b) 16  
 (c) 11 (d) 26



- 76. In the sentence identify the segment which contains the grammatical error.**

She got two quick promotions in order that she has good communication skills.

- (a) two quick promotions  
(b) she has good communication skills  
(c) in order that  
(d) she got

- 77. Select the most appropriate meaning of the given idiom.**

Costs an arm and a leg

- (a) easy to obtain (b) rarely available  
(c) nothing to lose (d) very expensive

- 78. Select the most appropriate word to fill in the blank.**

The state government argued that it could not \_\_\_\_\_ the increase in the teachers' salaries as awarded by the court.

- (a) Stand (b) spare  
(c) afford (d) get

**Directions (79-83):** In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank.

An Italian mayor has been cleaning the streets along with his councilors after their town (1) \_\_\_\_\_ with no manual workers, it's reported. In fact, (2) \_\_\_\_\_ was sweeping the piazza in front of the (3) \_\_\_\_\_ church in preparation for market day, (4) \_\_\_\_\_ to deputy mayor's father and a town councilor armed with a high-pressure hose. The town Zerfliu's last (5) \_\_\_\_\_ retired six months ago and nobody has been hired since then. "We can't do anything – we are blocked by bureaucracy," the mayor says.

- 79. Select the most appropriate option for blank no. 1**  
(a) Was left (b) was leaving  
(c) has left (d) leaves

- 80. Select the most appropriate option for blank no. 2**  
(a) he (b) it  
(c) they (d) she

- 81. Select the most appropriate option for blank no. 3**  
(a) near (b) local  
(c) neighbour (d) next

- 82. Select the most appropriate option for blank no. 4**  
(a) also (b) alongside  
(c) along (d) as well

- 83. Select the most appropriate option for blank no. 5**  
(a) councillor (b) member  
(c) worker (d) mayor

- 84. Select the wrongly spelt word.**  
(a) exemplify (b) Exhale  
(c) exempt (d) example

- 85. Select the wrongly spelt word.**  
(a) comparable (b) comparison  
(c) compitition (d) communication

- 86. Select the correct passive form of the given sentence.**

Do not park your car in front of my house.

- (a) your car need to be parked in front of my house  
(b) your car should not be parked in front of my house  
(c) your car could not be parked in front of my house  
(d) my house should not be parked in front of your car

- 87. Select the synonym of the given word GARRULOUS**

- (a) Guttral (b) Throaty  
(c) Concise (d) Talkative

- 88. Select the antonym of the given word. ESCALATE**

- (a) heighten (b) enlarge  
(c) raise (d) reduce

- 89. Select the antonyms of the given word. TENDER**

- (a) soft (b) warm  
(c) gentle (d) rough

- 90. Select the correct active form of the given sentence.**

The main gate of the building was being guarded by gun-toting guards.

- (a) Gun-toting guards guarded the main gate of the building  
(b) The main gate of the building were guarding gun-toting guards  
(c) Gun-toting guards were guarding the main gate of the building  
(d) Gun-toting guards have been guarding the main gate of the building.

**91. Given below are four jumbled sentences. Select the option that gives their correct order.**

- A. That sort of pollution, which is also widespread in other south-east Asian nations, regularly kills wildlife like whales and turtles that ingest the waste.
- B. Environmental groups have tagged the Philippines as one of the world's biggest ocean polluters due to its reliance on single-use plastic.
- C. In Thailand also, a whale died last year after swallowing more than 80 plastic bags.
- D. In the latest case, a whale with 40 kilos of plastic trash in its stomach died on Saturday in southern Philippines where it was stranded a day earlier.

- (a) BCAD (b) BADC
- (c) ABCD (d) DABC

**92. Select the most appropriate meaning of the given idiom.**

**Get out of hand**

- (a) get out of control (b) to complete a task
- (c) give up something (d) get upset

**93. Select the most appropriate option to substitute the underlined segment in the given sentence. If no substitution is required, select No improvement.**

I look for a better job for the last two months, but nothing is in sight.

- (a) have been looking for a better job
- (b) have looked for a better job
- (c) no improvement
- (d) looked for a better job

**94. Select the synonym of the given word**

**TILT**

- (a) Slant (b) Straighten
- (c) cross (d) support

**95. Given below are four jumbled sentences. Select the option that gives their correct order.**

- A. The elephant tusks were tracked from the Democratic Republic of Congo for two months.
- B. Customs officials in Thailand say it's the largest seizure in the country's history.
- C. Four tonnes of ivory, with a market value of \$6 million – it was an impressive haul.

D. Officials say they were being transported to Laos, from where they believed the ivory would be sold to customers across Asia.

- (a) CBAD (b) ACDB
- (c) ABCD (d) CABD

**96. Select the word which means the same as the group of words given.**

A person without a settled home or regular work who wanders from place to place and lives by begging.

- (a) Vagrant (b) itinerant
- (c) migrant (d) truant

**97. Select the word which means the same as the group of words given.**

A person, animal or plant belonging originally to a place

- (a) alien (b) native
- (c) resident (d) occupant

**98. Select the most appropriate option to substitute the underlined segment in the given sentence. If no substitution is required, select no improvement.**

If you join this job now, it proves to be good in the long run.

- (a) it has proved to be good
- (b) it will prove to be good
- (c) it proves good
- (d) no improvement

**99. Select the most appropriate word to fill in the blank.**

Scientists at Cambridge University are \_\_\_\_\_ how plants can give us sustainable energy.

- (a) looking (b) investigating
- (c) scrutinizing (d) inspecting

**100. In the sentence identify the segment which contains the grammatical error.**

Due to the cyclone Idai vast areas of land have been flooded, roads destroyed and communications disrupting in Zimbabwe and Mozambique.

- (a) vast areas of land have been flooded
- (b) and communications disrupting
- (c) due to the cyclone idai
- (d) roads destroyed