![disha Nurturing Ambitions]

SOLVED PAPER - 2020

This Solved Paper "Airmen Group Y" is taken from Book:

AIRMEN Group Y

(Non-Technical Trades) Exam

28 Practice Sets *with* **4** Solved Papers

(2017-2020) & 3 Online Tests

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28 Tests	
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3rd Edition
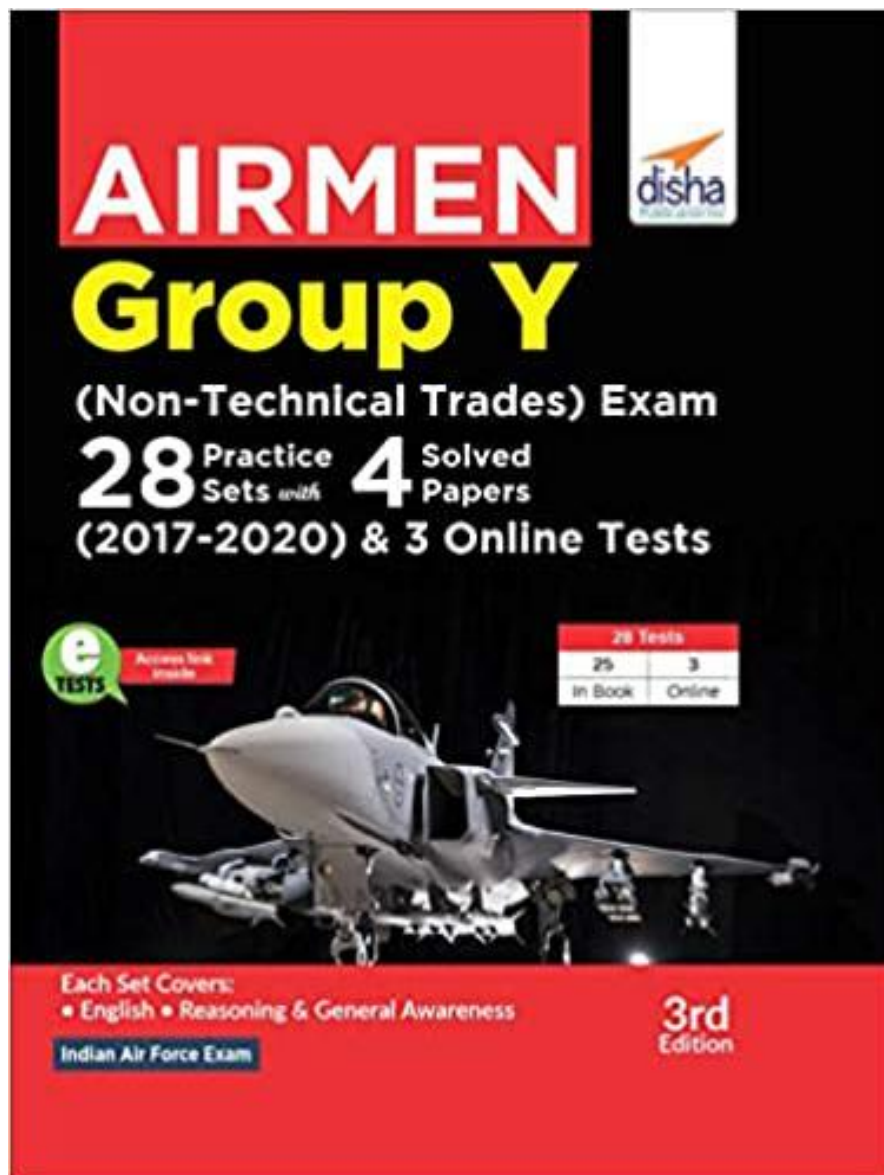
Indian Air Force Exam

INDIAN AIR FORCE AIRMEN GROUP Y
SOLVED PAPER - 2020
(Memory Based)

ENGLISH LANGUAGE

1. Find the one which is best expresses the meaning of the given word.
   Compatible
   (a) Suited
   (b) Inconsistent
   (c) Unfitted
   (d) Conflictive

2. Find the word opposite in meaning to the given word.
   Abrupt
   (a) Quick (b) Rushing
   (c) Gradual (d) Hasty

3. Find the noun form of the word.
   Compel
   (a) Compulsory (b) Compulsion
   (c) Compeller (d) Compellingly

4. Find the verb form of the word.
   Valid
   (a) Validly (b) Validation
   (c) Validates (d) Validate

5. Find the plural form of the word.
   Sheep
   (a) Sheep (b) Sheeps
   (c) Sheepish (d) Sheepishly

6. Choose the one which can be substituted for the given sentence.
   One who can throw his voice
   (a) Omnipotent (b) Omniscient
   (c) Omnipresent (d) Ventriloquist

7. Find the correctly spelt word.
   (a) Genatics (b) Sterage
   (c) Grossest (d) Granaite

8. Find the meaning of the idiom/phrase.
   Song and dance
   (a) to have an interest in music and dance
   (b) to make an unnecessary fuss
   (c) to be excited
   (d) to treat someone with all due respect

9. The following sentence has been given in Active/ Passive voice. From the given alternatives, choose the one which best expresses the given sentence in Passive /Active voice.
   My niece wrote a beautiful poem.
   (a) A beautiful poem was written by my niece.
   (b) A beautiful poem has been written by my niece.
   (c) A beautiful poem had been written by my niece.
   (d) A poem which was beautiful had been written by my niece.

10. The following sentence has been given in direct/ indirect speech. From the given alternatives, choose the one which best expresses the given sentence in direct/indirect speech.
    Pallavi said, "I will go to Agra tomorrow".
    (a) Pallavi said that she would go to Agra the next day.
    (b) Pallavi said she would go to Agra tomorrow.
    (c) Pallavi said she will be going to Agra the next day.
    (d) Pallavi said that she would go to Agra tomorrow.

DIRECTIONS (Qs. 11-12) : *In the following question, some parts of the sentence have errors and some have none. Find out which part of a sentence has an error. The number of that part is your answer. If a sentence is free from error, then your answer is (D) i.e. No Error..*

11. A person I met (A) /in the theatre (B)/ was the playwright himself (C). / No Error (D).
    (a) (A) (b) (B)
    (c) (C) (d) (D)

12. Zoya Akhtar, who conceived, co-authored (A)/ and directed a number of good films, was(B)/ one of India's most talented film maker. (C)/ No Error (D).
    (a) (A)   (b) (B)
    (c) (C)   (d) (D)

DIRECTIONS (Qs. 13-14) : *Given below are four jumbled sentences. Out of the given options pick the one that gives their correct order.*

13. The white American underclass is in thrall
    P: and used heroin needles
    Q: to a vicious, selfish culture
    R: whose main products are misery
    (a) PQR   (b) QRP
    (c) RPQ   (d) RQP

14. A certified, verifiable,
    P: would be a valuable
    Q: all-purpose identity card
    R: document for many people
    (a) QPR   (b) RQP
    (c) PQR   (d) PRQ

DIRECTIONS (Qs. 15-16): *In the following questions, sentences are given with blanks to be filled in with an appropriate and suitable word. Four alternatives are suggested for each question. Choose the correct alternative out of the four alternatives.*

15. The man _____ heavy losses in his investments.
    (a) raised   (b) reaped
    (c) earned   (d) incurred

16. It is very difficult for him to give up smoking as he is an _____ smoker.
    (a) Indifferent   (b) Inveterate
    (c) Insensitive   (d) Innate

DIRECTIONS (Qs. 17-20) : *Read the following passage carefully and choose the best answer to each question out of the four given alternatives.*

On a surface which is free from obstacles, such as a clear road or path, only two or three species of snakes can hope to catch up with a human being, even if they are foolish to try. A snake seems to move very fast but its movements are deceptive. In spite to the swift, wave-like motions of its body, the snake crawls along the ground at no more than the speed of a man's walk. It may, however, have an advantage inside a jungle, where the progress of a man is obstructed by thorny bushes. But in such places, the footsteps of a man are usually more than enough to warn snakes to keep away. Although they have no ears of the usual kind, they can feel slight vibrations of the ground through their bodies, and thus get an early warning of danger.

17. What is deceptive about the snake is its?
    (a) Speed
    (b) Crawling
    (c) Sense of direction
    (d) Movement

18. The snake has an advantage over men inside a jungle, because there?
    (a) it can crawl faster
    (b) Man's movement is obstructed
    (c) It is dark
    (d) It gets warning

19. What helps snakes to receive advance warning is their sensitivity to?
    (a) Light
    (b) Smell
    (c) Darkness
    (d) Movements

20. The speed at which a snake normally moves is?
    (a) Less than man's
    (b) Greater than man's
    (c) As fast as that of a man
    (d) As deceptive as that of a man

REASONING & GENERAL AWARENESS

21. Find the missing number from the given responses.
    6   10   26
    11   5   21
    8   8   ?
    (a) 22   (b) 24
    (c) 16   (d) 20

22. Mohan cycles 7 km East, then turns South and cycles 12 km, then turns West and cycles 7 km, then turns to his left and cycles 10 km. Where is

he now with reference to his starting position?

(a) 22 Kms South   (b) 2 Kms South

(c) 22 Kms East   (d) 2 Kms East

23. Isha hire a taxi from my home to go to my workplace. The fare system in the city is such that for the first kilometre, Isha charged Rs 25, and after that, Isha charged Rs 6 per kilometre. If my workplace is 10 km far from my home, what amount do Isha have to pay if Isha go by taxi?

(a) ₹ 64   (b) ₹ 89

(c) ₹ 90   (d) ₹ 79

24. The given Venn diagram represents the food item preference of a group of school students. There are three items: A-Burger, B-Chickpea, C- Pizza. How many students eat at least one item?
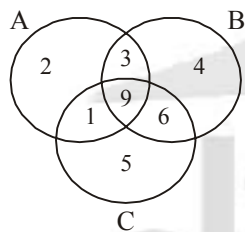
(a) 15   (b) 21

(c) 30   (d) 25

25. Choose the correct alternative from the given ones that will complete the series.

13, 32, 24, 43, 35, ?, 46, 65, 57, 76

(a) 45   (b) 52

(c) 54   (d) 55

26. In the following question, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

pfg _ _ pff _ ghhp _ pff _ gggh _ h

(a) pghhfp   (b) ghhhh

(c) hpgpfh   (d) hgpfhp

27. How is Rahul related to the daughter of only daughter-in-law of wife of Rahul's father?

(a) Husband   (b) Son

(c) Father   (d) Grand Father

28. Sunil's position from the left in a row of boys is 20th and Deepak's position from the right is 36th. After interchanging their position, Sunil becomes 28th from the left. How many boys are there in the row?

(a) 52   (b) 63

(c) 59   (d) 48

29. If – means ÷, + means ×, ÷ means –, × means +, then which one of the following is true?

(a) $52 \div 4 + 5 \times 8 - 2 = 36$

(b) $43 \times 7 \div 5 + 4 - 8 = 25$

(c) $36 \times 4 - 12 + 5 \div 3 = 420$

(d) $36 - 12 \times 6 \div 3 + 4 = 60$

DIRECTIONS (Qs. 30-31): *Answer the questions on the basis of the information given below.*

WGM Lights Company launches eight lights– Q, R, S, T, V, W, Y and Z – in one of the four metro of India. The lights were launched one after the other over a period of six months in 2019. The order in which the lights were launched is consistent with the following conditions:

(i) V is launched before both Y and Q

(ii) Q gets launched after Z.

(iii) T gets launched before V but after R.

(iv) S get launched after V.

(v) R get launched before W.

30. Which one of the following could be true?

(a) Y is the second lights to be launched

(b) R is the third lights to be launched

(c) Q is the fourth lights to be launched

(d) S is the fifth lights to be launched

31. If Z is the seventh lights to be launched then which one of the following could be true

(a) W is the fifth lights to be launched.

(b) T is the fourth lights to be launched.

(c) R is the second lights to be launched.

(d) V is the sixth lights to be launched.

32. Find the related word from the given alternative.

Odometer: mileage :: Compass:

(a) Speed

(b) Hiking

(c) Direction

(d) Needle

33. Identify the figure that completes the pattern.

     (X)   (1)   (2)   (3)   (4)
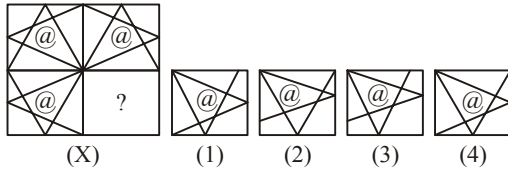
   (a) 1
   (b) 2
   (c) 3
   (d) 4

34. Find out the alternative figure which contains figure (X) as its part.

   X   1   2   3   4
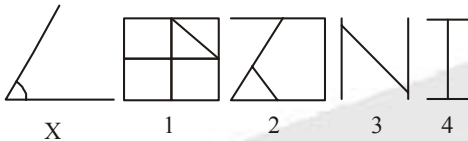
   (a) 1   (b) 2
   (c) 3   (d) 4

35. Choose the alternative which is closely resembles the mirror image of the given combination.

TERMINATE

   (a) TƎRMIИATƎ   (b) ƎTAИIMRET

   (c) ƎTAИIMRET   (d) ETAИATE

36. If the 8-digit number 789 × 531y is divisible by 72, then the value of $(5x - 3y)$ is
   (a) 0   (b) –1
   (c) 2   (d) 1

37. 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 do his savings increase/decrease?
   (a) It decreases by 10%
   (b) It decreases by 2%
   (c) It increases by 10%
   (d) It increases by 2%

38. ABC and CDE are right angled triangle. $\angle ABC = \angle CDE = 90°$, D lies on AC and E lies on BC. AB = 24 cm, BC = 60 cm. If DE = 10 cm, then CD is:
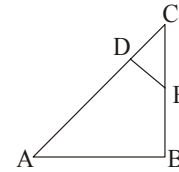
   (a) 28 cm   (b) 35 cm
   (c) 25 cm   (d) Can't be determined

39. Maximum value of $(\cos \theta - \sin \theta)$ is:

   (a) $\dfrac{1}{\sqrt{2}}$ (b) $\dfrac{1}{2}$

   (c) 2   (d) $\sqrt{2}$

40. What will be the maturity value, if ₹ 15,500 is deposited at a simple rate of interest of 12.5% for two years?
   (a) ₹ 16,187.50   (b) ₹ 19,375.00
   (c) ₹ 19,375.50   (d) ₹ 18,785.00

41. Who among the following is the father of computer science?
   (a) Alan Turing
   (b) Charles Babbage
   (c) Gary Kildall
   (d) Bill Gates

42. Where is black forest situated?
   (a) Australia   (b) Newzeland
   (c) Germany   (d) Italy

43. In which country Commonwealth 2022 will be conducted?
   (a) Birmingham, England
   (b) Gold Coast, Australia
   (c) Glasgow , United Kingdom
   (d) New Delhi, India

44. What is the full form of USB?
   (a) Universal Series Bus
   (b) Universal Serial Bus
   (c) Universe Series Bus
   (d) Universe Serial Bus

45. Shivraj Singh Chauhan is the CM of which state?
   (a) Uttar Pradesh
   (b) Rajasthan
   (c) Madhya Pradesh
   (d) Maharashtra

46. Who invented aeroplane?
    (a) Graham bell
    (b) Newton
    (c) Wright brothers
    (d) Blaise Pascal

47. International Day of Zero Tolerance for Female Genital Mutilation is celebrated every year on?
    (a) 5th March
    (b) 6th February
    (c) 4th May
    (d) 1st April

48. Largest planet of solar system is
    (a) Mars   (b) Venus
    (c) Neptune   (d) Jupiter

49. Manika Batra is associated with which game?
    (a) Football   (b) Wreslling
    (c) Tennis   (d) Table Tennis

50. What is the currency of Algeria?
    (a) Algerian Dinar (b) Euro
    (c) Kwanza   (d) Dollar

Hints & Explanations

1. (a) Compatible means (of two things) able to exist or occur together without problems or conflict; suited means adapted for an occasion or use.

2. (c) Abrupt means sudden and unexpected while Gradual means proceeding in small stages which is antonym.

3. (b) The simplest noun form of compel (verb) is compulsion.

4. (d) Valid means legally or officially acceptable; validate (verb) means declare or make legally valid.

5. (a) The plural form of the word sheep is sheep.

6. (d) Ventriloquist means a person, especially an entertainer, who can make their voice appear to come from somewhere else, typically a dummy of a person or animal.

7. (c) Grossest means before any deductions; other correctly spelt should be genetics, Steerage and Granite.

8. (b) If someone is making song and dance, you mean they are making an unnecessary fuss about it.

9. (a) The general rule for sentences in simple past passive is: 'Object + was / were + past participle of main verb (third form)' in an affirmative sentence. 'Was / were + object + past participle of main verb (third form)' in the case of a question.

10. (a) The Helping verb of Future Simple tense will convert to 'Would' in the Indirect (reported) Speech. Tomorrow become the next day.

11. (a) Replace 'A' by 'The'. The is used before specified objects.

12. (c) Replace 'maker' by 'makers'. One of the/ Many/Most of the + Plural Noun + ….

13. (b) The idiom 'in thrall' means in a state of being controlled or strongly influenced by someone or something and it is followed by the preposition 'to'. Hence, correct sequence is 'QRP'.

14. (a) All-purpose complements with certified, verifiable; hence, the correct sequence is 'QPR'.

15. (d) **Incur:** become subject to (something unwelcome or unpleasant) as a result of one's own behavior or actions.
    Reap means cut or gather (a crop or harvest).

16. (b) Inveterate means always doing something and unlikely to stop which perfectly complements with a habit which is here smoking.

17. (d) It is mentioned in the passage that the movement of the snakes is deceptive.

18. (b) The snake has an advantage over men inside a jungle because there man's movement is obstructed

19. (d) Movements help snakes to receive advance warning with their sensitivity.

20. (c) The speed at which a snake normally moves is as fast as that of a man.

21. (b) Missing no. is
    $6 + 10 \times 2 = 26, 11 + 5 \times 2 = 21, 8 + 8 \times 2 = 24.$

22. (a)

∴ Mohan is 22 km in south direction from his starting position.

23. (d) Total amount $= 25 + (10 - 1) \times 6$
    $= 25 + 54 = ₹79$

24. (c) No. of students eat at least one item
    $= 9 + 1 + 6 + 3 + 2 + 4 + 5 = 30$

25. (c) The given sequence is a combination of two series
    I. 13, 24, 35, 46, 57 and
    II. 32, 43, ?, 65, 76
    The pattern in both I and II is + 11.
    So, missing term $= 43 + 11 = 54$

26. (c) p f g **h** / **p** p f f **g** g h h / **p** **p** p f f **f** g g g h **h** h

27. (c) Father   –   Wife
         | |
    Rahul   –   Daughter in Law
                      |
                 Daughter
    Rahul is the father.

28. (b)
    Sunil   Deepak
    ←————|————————|————→
    20th (Left) 36th (Right)
            28th (Left)
    (Sunil after interchanging)

    ∴   Total number of boys in the row
    $= 36 + 28 - 1 = 63$

29. (a) $52 \div 4 + 5 \times 8 - 2 = 36$
    On interchanging signs we get,
    $= 52 - 4 \times 5 + 8 \div 2 = 32 + 4 = 36$

30. (d) According to the question,
    $V < Y$ and Q
    $Z < Q$
    $R < T < V < S$
    $R < W$
    Option (d) → S must be launched after R, T and V hence it can be launched after 3. In one possibility it can be launched after Z, then it could be launched as fifth light.
    Option (a) → Since Y launched after V hence after V, R and T launched, so at the earliest Y can be launched is at 4th position.
    Option (b) → R must be either 1st or the 2nd position.
    Option (c) → Q launched after R, T , V and Z.

31. (a) According to the question,
    RTVSWYZQ
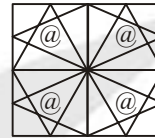   Option (a) could be true
    Option (b) could not be true
    Option (c) could not be true as R is in first position
    Option (d) could not be true.

32. (c) Odometer is an instrument used to measure mileage.
    Similarly → Compass is an instrument used to determine direction

33. (d)

34. (b)

35. (c)

36. (b) Divisible by 72 means divisible by 8 and 9.
    Last 3 digits must be divisible by 8
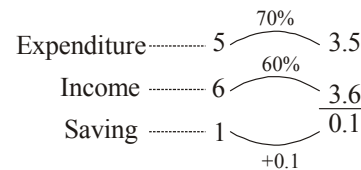 $31y \div 8$
    We get,
       $y = 2$
    Sum of digit must be multiple of 9.
    So, $7 + 8 + 9 + x + 5 + 3 + 1 + 2 = 8 + x$
    So , $x = 1$
    Now, $5x - 3y = 5 - 6 = -1$

37. (c)
    Expenditure ———— 5 ⟨70%⟩ 3.5
    Income ———— 6 ⟨60%⟩ 3.6
    Saving ———— 1 ⟨+0.1⟩ 0.1

    Increase in Saving $= \dfrac{0.1}{1} \times 100\% = 10\%$

38. (c) $\angle CDE = \angle ABC = 90°$
    $\angle DEC = \angle BAC$
    $\triangle ABC \sim \triangle EDC$

$\dfrac{AB}{BC} = \dfrac{ED}{CD}$

$\dfrac{24}{60} = \dfrac{10}{CD}$

CD = 25 cm

39. (d) Maximum value of a sin θ + b cos θ is given

by $\sqrt{a^2 \; b^2}$

Here a = –1, b = 1

So, $\sqrt{(-1)^2 \; 1^2} \quad \sqrt{2}$

40. (b) S.I. = $\dfrac{15500 \times 12.5 \times 2}{100}$

S.I. = 3875

Amount = 15500 + 3875 = 19375

41. (a) Alan Turing is considered to be the father of computer science and artificial intelligence. He formed the concept of the algorithms and computations with one of his inventions the turning machine.

42. (c) Black forest is situated in the state of Baden-Wurttemberg in southwest Germany. It is bounded by the Rhine valley to the west and south. It occupies an area of 2,320 Square miles (6009 Square km).

43. (a) The 2022 Commonwealth Games will be held in Birmingham, England. They will be the third Commonwealth Games to be hosted in England following London 1934 and Manchester 2002.

44. (b) The full form of USB is Universal Serial Bus. It is a common platform that allows communication between devices and a host controller such as a PC.

45. (c) Shivraj Singh Chouhan is the 19th and current Chief Minister of Madhya Pradesh, having been elected to the same position 3 times in the past, and a Member of Legislative Assembly in Madhya Pradesh from Budhni.

46. (c) The Wright brothers invented an aeroplane and flew the first airplane in 1903.

47. (b) International Day of Zero Tolerance for Female Genital Mutilation is a United Nations-sponsored annual awareness day that takes place on February 6.

48. (d) The largest planet in our solar system is Jupiter, which beats out all the other planets in both mass and volume. Jupiter's mass is more than 1300 times that of Earth, and its diameter, at 140,000 km, is about 11 times Earth's diameter.

49. (d) Manika Batra is an Indian table tennis player. She received Rajiv Gandhi Khel Ratna Award in 2020.

50. (a) The Algerian dinar is the monetary currency of Algeria.