Deerwalk Aptitude Test (DAT)

Instruction
All questions are compulsory.

There are three major sections in this paper - English, Mathematics, and IQ.
The marks wise distribution of each of the section is as follows:

Section	Subject	Marks	Time [Suggested]
A	English	30	60 Minutes
B	Mathematics	30	60 Minutes
C	IQ	20	30 Minutes

You are advised to spend the suggested time.
Please darken the most appropriate answer in the provided answer sheet.

Section A – English

Nelson Mandela Speech

The following passage is adapted from a pivotal 1964 speech by South Africa's Nelson Mandela, called "An Ideal for Which I Am Prepared to Die." Mandela, later elected first president of democratic South Africa, gave this speech before his trial and imprisonment for activism against apartheid, a now-obsolete system of racial segregation in South Africa.

01 The lack of human dignity experienced by
Africans is the direct result of the policy of white
supremacy…. Menial tasks in South Africa are
invariably performed by Africans. When anything

05 has to be carried or cleaned the white man will look
around for an African to do it for him, whether the
African is employed by him or not. Because of this
sort of attitude, whites … do not look upon them
as people with families of their own; they do not

10 realise that they have emotions—that they fall in
love like white people do; that they want to be with
their wives and children like white people want
to be with theirs; that they want to earn enough
money to support their families properly, to feed

15 and clothe them and send them to school….
Pass laws, which to the Africans are among
the most hated bits of legislation in South Africa,
render any African liable to police surveillance at
any time. I doubt whether there is a single African

20 male in South Africa who has not at some stage
had a brush with the police over his pass. Hundreds
and thousands of Africans are thrown into jail each
year under pass laws. Even worse than this is the
fact that pass laws keep husband and wife apart and

25 lead to the breakdown of family life.
Poverty and the breakdown of family life have
secondary effects. Children wander about the
streets of the townships because they have no
schools to go to, or no money to enable them to go

45 part of the general population, and not confined
to living in their own ghettoes. African men want
to have their wives and children to live with them
where they work…. Africans want to be allowed
out after eleven o'clock at night and not to be

50 confined to their rooms like little children. Africans
want to be allowed to travel in their own country
and to seek work where they want to and not where
the labour bureau tells them to. Africans want a
just share in the whole of South Africa; they want

55 security and a stake in society.
Above all, we want equal political rights, because
without them our disabilities will be permanent.
I know this sounds revolutionary to the whites in
this country, because the majority of voters will be

60 Africans. This makes the white man fear democracy.
But this fear cannot be allowed to stand in the
way of the only solution which will guarantee
racial harmony and freedom for all. It is not true
that the enfranchisement of all will result in racial

65 domination. Political division, based on colour, is
entirely artificial and, when it disappears, so will
the domination of one colour group by another.
The ANC1 has spent half a century fighting against
racialism. When it triumphs it will not change that

70 policy.
This then is what the ANC is fighting. Their
struggle is a truly national one. It is a struggle of
the African people, inspired by their own suffering
and their own experience. It is a struggle for the

30 to school, or no parents at home to see that they go
to school, because both parents (if there be two)
have to work to keep the family alive. This leads to
a breakdown in moral standards … and to growing
violence which erupts not only politically, but

35 everywhere.…
Africans want to perform work which they
are capable of doing, and not work which the
government declares them to be capable of.
Africans want to be allowed to live where they

40 obtain work, and not be endorsed out of an area
because they were not born there. Africans want to
be allowed to own land in places where they work,
and not to be obliged to live in rented houses which
they can never call their own. Africans want to be

75 right to live.
During my lifetime I have dedicated myself to
this struggle of the African people. I have fought
against white domination, and I have fought
against black domination. I have cherished the

80 ideal of a democratic and free society in which all
persons live together in harmony and with equal
opportunities. It is an ideal which I hope to live
for and to achieve. But if needs be, it is an ideal for
which I am prepared to die.

Note:
[1]ANC: African National Congress, the political organization that spearheaded the movement for equal rights in South Africa

1. What is the most likely intended purpose of this speech?
   a. To explain the political goals of the ANC
   b. To explain why Mandela is not guilty of the crime of which he is accused
   c. To argue that the laws passed under apartheid are illegal
   d. To explain to white South Africans why the apartheid system must be abolished
2. Which choice provides the best evidence for the answer to the previous question?
   a. Lines 1-3 ("The lack of … supremacy")
   b. Lines 36-37 ("Africans want … of doing")
   c. Lines 68-69 ("The ANC … racialism")
   d. Lines 76-77 ("During … African people")
3. As used in line 40, "endorsed" most nearly means
   a. supported.
   b. signed.
   c. authorized.
   d. approved.
4. It can be reasonably inferred that pass laws
   a. led to the criminal behavior they were designed to prevent.
   b. were fundamentally European and incompatible with African life.
   c. led to the passage of additional apartheid laws.
   d. were a necessary part of South Africa's transition to democracy.
5. Which choice provides the best evidence for the answer to the previous question?
   a. Lines 19-21 ("I doubt … his pass")
   b. Lines 21-23 ("Hundreds … pass laws")
   c. Lines 26-27 ("Poverty … effects")
   d. Lines 32-35 ("This leads to … but everywhere")
6. As used in line 66, "artificial" most nearly means
   a. simulated.
   b. not genuine.
   c. imitative.
   d. man-made.

7. According to Mandela's claims, what is true of democracy?
    a. It is fundamentally incompatible with white rule.
    b. It existed in South Africa before apartheid.
    c. It is a goal of white South Africans.
    d. It would lead to increased crime at all levels.

8. The statement in lines 68-70 ("The ANC … policy") is important to the overall argument in its suggestion that
    a. black South Africans will initiate steps to curb violence without pass laws.
    b. black South Africans will be happier once there are equal political rights.
    c. black South Africans will not retaliate once there are equal political rights.
    d. black South Africans will continue to endorse a separate but equal system.

9. It can be reasonably inferred that Mandela would most likely support which of the following future policies?
    a. Reduction of domestic employment
    b. Job training for untrained workers
    c. Pass laws for all whites and blacks
    d. Investment in overseas business

10. Paragraph 6 of Mandela's speech can be described as
    a. a promise that the changes he proposes will be good for all people.
    b. a contrast between his former beliefs and those he currently holds.
    c. an acknowledgment that he knows there is no perfect system.
    d. a thank-you for people's continued support in a difficult situation.

Sentence Completion:

11. Gwen Guthrie's controversial compact disc was _____ by wary radio programmers until the city's listening audience _____ her work and requested its airplay.
    a. ignored . . initiated
    b. banned . . overlooked
    c. dismissed . . praised
    d. appreciated . . enjoyed

12. When autumn comes to the Southwest, the chamisa plant blooms, and this previously _____ shrub suddenly seems to be everywhere.
    a. omnipresent
    b. flowering
    c. dazzling
    d. inconspicuous

13. In sharp contrast to the previous night's revelry, the wedding was _____ affair.
    a. a fervent
    b. a dignified
    c. an ingenious
    d. a jubilant

14. Because Congress exempted the _____ of household products from its regulation of hazardous waste, consumers continue to contribute to toxic pollution by improperly _____ dangerous substances.
    a. purchase . . manufacturing
    b. enlargement . . preserving
    c. abundance . . economizing
    d. disposal . . discarding

15. As a boy and young man, Paul Cézanne was _____ but also _____ : extremely passionate about painting yet unusually restrained socially.
    a. auspicious . . reticent
    b. zealous . . compulsive
    c. ardent . . inhibited
    d. impetuous . . officious

16. In the _____ areas of the rail road terminal thousands of travellers lingered while waiting for their train.
    a. extensive
    b. capacious
    c. commodious
    d. capricious
17. Knowledge is like a deep well fed by _____ springs, and your mind is the little bucket that you drop in it.
    a. perennial
    b. eternal
    c. sterling
    d. immortal
18. These were reduced to skeletons for they had long been _____ for food.
    a. famishing
    b. longing
    c. snarling
    d. craving
19. A legislation was passed to punish brokers who _____ their clients funds.
    a. devour
    b. devastate
    c. dawdled
    d. embezzle
20. We had a wonderful view of the bay through the _____
    a. window
    b. zenith
    c. vicinity
    d. proximity

Word Analogies:

21. DRIP : GUSH
    a. Cry : Laugh
    b. Curl : Roll
    c. Stream : Tributary
    d. Dent : Destroy

22. WALK : LEGS
    a. Gleam : Eyes
    b. Chew : Mouth
    c. Dress : Hem
    d. Cover : Book

23. ENFRANCHISE : SLAVERY
    a. Equation : Mathematics
    b. Liberate : Confine
    c. Bondage : Subjugation
    d. Appeasement : Unreasonable

24. UNION JACK : VEXILLOLOGY
    a. Toad : Ornithology
    b. Turtle : Microbiology
    c. Gymnosperms : Botany
    d. Friend : Home Economics

25. TOPAZ : YELLOW
    a. Diamond : Carat
    b. Jeweler : Clarity
    c. Sapphire : Red
    d. Amethyst : Purple
26. BINDING : BOOK
    a. criminal : gang
    b. display : museum
    c. nail : hammer
    d. frame : picture
27. EXPLORE : DISCOVER
    a. read : skim
    b. research : learn
    c. think : relate
    d. sleep : wake
28. COTTON : BALE
    a. butter : churn
    b. wine : ferment
    c. grain : shock
    d. curd : cheese
29. DIVISION : SECTION
    a. layer : tier
    b. tether : bundle
    c. riser : stage
    d. dais : speaker
30. PASTORAL : RURAL
    a. metropolitan : urban
    b. agrarian : benevolent
    c. sleepy : nocturnal
    d. wild : agricultural

Section B – Mathematics

1. Of a group of 120 students, 90 takes mathematics and 72 takes statistics. If 10 students neither of two, the number of student taking both subjects are:
    a. 50
    b. 45
    c. 52
    d. 58
2. Rational numbers are defined by;
    a. $\{x: x = \frac{a}{b}, a,b \in R\}$
    b. $\{x: x = \frac{a}{b}, a,b \in R, b \neq 0\}$
    c. $\{x: x = \frac{a}{b}, a,b \in Z, b \neq 0\}$
    d. All of above
3. Two order pairs (m,n) and (s,t) are equal if;
    a. m = n, s ≠ t
    b. m = t, n = s
    c. m = s, n = t
    d. m ≠ n, s ≠ t

4. Look at the sequence: 7, 10, 8, 11, 9, 12…. what number should come next?
    a. 7
    b. 10
    c. 12
    d. 13

5. If [2 -1 -2 x+2], is non-invertible matrix then what is the value of x;
    a. 0
    b. 1
    c. -2
    d. -1

6. Choose the best answer for √(-1) .√(-16) ;
    a. 4
    b. ±4
    c. -4
    d. None

7. Determine the nature of roots of $2x^2-x+2 = 0$;
    a. Rational & equal
    b. Imaginary & equal
    c. Irrational & unequal
    d. Imaginary & unequal

8. In an examination paper on business Mathematics, 18 questions are set. In how many different ways can you choose 15 questions to answer?
    a. 814
    b. 815
    c. 816
    d. 817

9. How many numbers of plates of vehicles consisting of 4 different digits be made out of integers 4, 5, 6, 7, 8, 9?
    a. 30
    b. 120
    c. 360
    d. 720

10. What is the value of cos cos 3/5)) ;
    a. 4/5
    b. 3/5
    c. 5/4
    d. 5/3

11. What is the value of sec 60°?
    a. $\frac{2\sqrt{3}}{3}$
    b. $\frac{\sqrt{3}}{2}$
    c. 2
    d. $\frac{1}{2}$

12. If the slope of line joining (1,2) and (k ,-5) is equally inclined with the line y = x, then k is
    a. 6
    b. -6
    c. 3
    d. -2

13. Where does the straight line joining (1,2) and (3,2) intersect y-axis?
    a. (2,0)
    b. (0,2)
    c. (1,2)
    d. (2,1)

14. What is the equation of straight line that passes through the point (3,4) and sum of whose intercept is zero;
    a. x-y+1 = 0
    b. x-2y+1 = 0
    c. x+y-1 = 0
    d. 5x-6y-9 = 0

15. The system of linear equation will be consistent and independent if they have,
    a. exactly one solution
    b. more than one solution
    c. no solution
    d. none of these

16. Ram bought oranges at 6 for Rs. 10 and sold them at 4 for Rs. 6, find his loss percent
    a. 12%
    b. 8%
    c. 6%
    d. 10%

17. If the radius of a circle is decreased by 50%. What is the decreased percentage in area?
    a. 75%
    b. 80%
    c. 85%
    d. None of the above

18. How many stones each of area 0.16 m square are required for paving a courtyard 5.5 m long and 4.8 m wide?
    a. 165
    b. 100
    c. 60
    d. 50

19. The ratio of the ages of A and B is 3:5. If B is 8 years elder to A then, what is the age of A?
    a. 12
    b. 14
    c. 16
    d. 18

20. If $9^x - 9^{x-1} = 648$, then find the value of x^x?
    a. 4
    b. 9
    c. 27
    d. 64

21. At what rate% p.a at which a sum of Rs. 1200 invested at CI becomes Rs.1323 in 2 years?
    a. 5%p.a
    b. 7%p.a
    c. 12%p.a
    d. 15%p.a

22. Which one of following is Empirical relation;
    a. Mode = 3 Median – 2Mean
    b. Median = 3Mode – 2Mean
    c. Mean = 3Median – 2 Mode
    d. Mode = 3Mean – 2Median

23. Which one of the following is S.D of given distribution: : $\underline{x} = 145$, n = 10 and C.V = 2.41%
    a. 3.5
    b. 4.5
    c. 5.5
    d. 6.5

24. What is the probability of drawing a club or a jack when one card is drawn randomly from a well shuffled pack of 52 cards?
    a. $\dfrac{15}{52}$
    b. $\dfrac{16}{52}$
    c. $\dfrac{17}{52}$
    d. $\dfrac{18}{52}$

25. If two children are born in a family, then probability of a boy & other girl is;
    a. $\dfrac{1}{4}$
    b. $\dfrac{2}{4}$
    c. $\dfrac{3}{4}$
    d. $\dfrac{4}{4}$

26. If $\dfrac{x^5-a^5}{x-a} = 405$ then the positive value of a is;
    a. 3
    b. -3
    c. ±3
    d. undefined

27. For what value of k the function f(x) = $\{\dfrac{sinsin\ 5x}{3x}, \ x \neq 0 \quad k \quad , \ x = 0$ is continuous at x = 0?
    a. 3/5
    b. 1
    c. 0
    d. 5/3

28. What will be the derivative of 2x²+3x-6?
    a. 2x+3
    b. 4x-3
    c. 3x+4
    d. None of the above

29. Find the maximum and minimum value of : x³-3x+4;
    a. 3, -1
    b. 6, 2
    c. -1, 3
    d. 2, 6

30. Find the value of: $\int_0^2 \dfrac{x}{\sqrt{1+x^2}}\, dx$;
    a. $\sqrt{5}$
    b. $\sqrt{5}+1$
    c. $\sqrt{5}-1$
    d. 1 - $\sqrt{5}$

Section C – IQ

1. One element, which may not justify violence itself but which _____ its use, is the belief that death in a sacred cause is the proper end of life.
   a. incriminates
   b. valorizes
   c. indicts
   d. abrogatess

2. 8 directors, the vice chairman and the chairman are to be seated around a circular table. If the chairman should sit between a director and the vice chairman, in how many ways can they be seated?
   a. 9!
   b. 7! * 2
   c. 9! * 2
   d. 8! * 2

3. Ms. Forest likes to let her students choose who their partners will be; however, no pair of students may work together more than seven class periods in a row. Adam and Baxter have studied together seven class periods in a row. Carter and Dennis have worked together three class periods in a row. Carter does not want to work with Adam. Who should be assigned to work with Baxter?
   a. Carter
   b. Adam
   c. Dennis
   d. Forest

4. A, B, C and D are four persons of a family. A is daughter of B. B is son of C. C is the father of D. Which statement in the following is true?
   a. D and B are brothers
   b. A is the daughter of D
   c. If D is the daughter of B, then A and D are sisters
   d. C is uncle of A

5. A university library budget committee must reduce exactly five of eight areas of expenditure—I, J, K, L, M, N, O and P—in accordance with the following conditions:
   If both I and O are reduced, P is also reduced.
   If L is reduced, neither N nor O is reduced.
   If M is reduced, J is not reduced.
   Of the three areas J, K, and N exactly two are reduced.
   Question :
   If both K and N are reduced, which one of the following is a pair of areas neither of which could be reduced?
   a. I, L
   b. J, L
   c. J, M
   d. I, J

6. A poem of mouring is _____
   a. epic
   b. Sonnet
   c. Lyric
   d. elegy

7. The average of 11 numbers is 10.9. If the average of first six is 10.5 and that of the last six is 11.4 the sixth number is?
   a. 11.0
   b. 11.3
   c. 11.4
   d. 11.5

8. This question consists of 6 statements (A, B, C, D, E & F) followed by options consisting of 3 statements put together in a specific order. Choose the option which indicates a valid argument, i.e. the 3rd statement is a conclusion drawn from the earlier 2 statements.
   A. Bricks are not green
   B. Some bricks are red
   C. All green things are hard
   D. Some bricks are not hard
   E. No brick is hard
   F. Some green are red
      a. CEA
      b. BDC
      c. CBA
      d. EAC

9. The average of 10 numbers is 23. If each number is increased by 4, what will the new average be?
      a. 22
      b. 27
      c. 25
      d. 29

10. Danielle has been visiting friends in Ridgewood for the past two weeks. She is leaving tomorrow morning and her flight is very early. Most of her friends live fairly close to the airport. Madison lives ten miles away. Frances lives five miles away, Samantha, seven miles. Alexis is farther away than Frances, but closer than Samantha. Approximately how far away from the airport is Alexis?
      a. nine miles
      b. seven miles
      c. eight miles
      d. six miles

11. A sector of a circle of radius 5 cm is recast into a right circular cone of height 4 cm. What is the volume of the resulting cone?
      a. 12π cm^3
      b. 100π cm^3
      c. 33π cm^3
      d. 32π cm^3

12. Nine men went to a hotel. Eight of them spent Rs.3 each over their meals and the ninth spent Rs.2 more than the average expenditure of all the nine. Determine the total money spent by them?
      a. Rs.29.25
      b. Rs.30.25
      c. Rs.32
      d. Rs.35

13. There is a family of six persons A, B, C, D, E and F. Their professions are Software Engineer, Doctor, Trainer, Salesman, Make-up Artist and Lawyer.
    (i) There are two married couples in the family
    (ii) The Make-up artist is the grandfather of F, who is a Software Engineer
    (iii) C, the Salesman, is married to the lady Trainer
    (iv) B is the mother of E and F.
    (v) The Doctor, ,D is married to the Make-up artist.
    What is the profession of A?
      a. Lawyer
      b. Trainer
      c. Make-up artist
      d. Salesman

14. AI, EO, IU, ___, UE
     a. OU
     b. OI
     c. UA
     d. OA
15. A thing kept in the memory of a person.
     a. gift
     b. Elegy
     c. momento
     d. epitaph
16. If $x^2 + 6x = -9$, how many values of x are possible?
     a. none
     b. one
     c. two
     d. three
17. Ms Li works at an office where the work timing is from 9:00 AM to 6:00 PM. 25% of a year she goes late to office and 35% of a year she leaves early from office. If P is the probability that she works at office the entire day then
     a. $0.25 \leq P \leq 0.35$
     b. $0.4 \leq P \leq 0.65$
     c. $0.35 \leq P \leq 0.4$
     d. $0.1 \leq P \leq 0.6$
18. Besides the items _____ from the cupboard, documents were _____ all over the floor
     a. Disappearing, thrown
     b. Missing, strewn
     c. Deprived, scatters
     d. Clear, split
19. Fact 1: Jessica has four children.
     Fact 2: Two of the children have blue eyes and two of the children have brown eyes.
     Fact 3: Half of the children are girls.
     If the first three statements are facts, which of the following statements must also be a fact?
     I. At least one girl has blue eyes.
     II. Two of the children are boys.
     III. The boys have brown eyes.
     a. II only
     b. I and III only
     c. II and III only
     d. None of the statements is a known fact.
20. If the ratio of the ages of two friends A and B is 3 : 5 and that of B and C is 3 : 5 and the sum of the ages of all 3 friends is 147, how old is B?
     a. 15 Years
     b. 75 Years
     c. 45 Years
     d. 27 Years