

Scholastic Aptitude Test, 2016 EC, social science, entrance exam, round 1

Grade 12 · Aptitude · 2016 E.C.

Time allowed: 120 minutes

Questions: 46

Total marks: 46

Name _____ Grade _____ ID No. _____ Date _____

1. DESTITUTE (1)
 - A. wealthy
 - B. prostitute
 - C. generous
 - D. healthy
2. NIECE (1)
 - A. cousin
 - B. nephew
 - C. nice
 - D. aunt
3. REFUTE (1)
 - A. rebut
 - B. disprove
 - C. confirm
 - D. deny
4. The word timidly in paragraph 1, line 2 is synonymous with: (1)
 - A. nervously
 - B. angrily
 - C. timely
 - D. bravely
5. Father : How was your exam yesterday? Son : I got zero out of twenty? Father : Bravo! What can we conclude from this conversation between father and son? (1)
 - A. The father was sarcastic and disappointed with his son.
 - B. The father was humorous and he rejoiced at his son's result.
 - C. The son was happy with his result.
 - D. The father was honestly pleased with his son.
6. An assassinee is an important person killed by someone; whereas, a martyr is any person killed because of their political beliefs. Abbune was killed on the cause of freedom, whereas, President Safi was shot dead in broad light. From this we can conclude that: (1)
 - A. When Abbune is an assassinee, Safi is a martyr.
 - B. Both Safi and Abbune are assassinees.
 - C. When Saji is an assassinee, Abbune is a martyr.
 - D. Both Saji and Abbune are martyrs.
7. People who speak French can also speak English. Alex is French and Tom is American. To be an American, one should be able to speak English. Which of the following is, therefore, necessarily true? (1)
 - A. Tom speaks both French and English.
 - B. Tom speaks English.
 - C. Alex speaks French.
 - D. Alex speaks both French and English.
8. In a pseudo language called Vandu, dvt means work, gnafu means drives. gnafye means drivers. dvty means worker. gnadfaa means drove. What does dvtye gnadfaa mean in Vandu? (1)
 - A. Worker drives.
 - B. Drivers drove.
 - C. Driver drives.
 - D. Workers drove.

9. Based on the data in question 13, the past tense form of work in Vandu is: (1)

- A. dvted
B. dvtaa
C. dvtu
D. dvtya

10. Based on the data in question 13, if kont means girl, its plural form will be: (1)

- A. konty B. kongs
- C. kontye D. konde

11. Which of the following is a word in English formed from three consecutive letters? (1)

- A. feed B. face
C. bead D. bad

12. Learning to swim was not easy for me, but in the end my ____; paid off. (1)

- A. strength
B. experience
C. tolerance
D. persistence

13. He was charged with carrying an offensive _____.

- A. thought B. weapon
C. speech D. belief

14. I work a minimum of 35-hours a week to put myself through school without ___ to the temptation of a student loan. (1)

- A. falling
B. combating
C. succumbing
D. surviving

15. The skyscraper rose ___ at the center of the town. Every visitor loves to explore it. (1)

- A. thickly B. brightly
C. proudly D. highly

16. On bad days I even felt ____; I just wanted to kill myself. (1)

- A. suicidal B. poisoned
C. causal D. pleased

17. DISPENSE (1)

- A. spoil B. distribute
C. expend D. destroy

18. ERRAND (1)

- A. rider
B. passenger
C. brand
D. messenger

19. GRACEFUL (1)

- A. dominant
B. great
C. grateful
D. attractive

20. EQUIVOCALLY (1)

- A. clearly B. uniquely
C. ambiguously D. equally

21. CALCULATE: BALANCE; ____: paragraph. (1)
- | | |
|--------------|------------|
| A. construct | B. compose |
| C. describe | D. combine |
22. AIRCRAFT: JET; ____: truck. (1)
- | | |
|------------|-----------|
| A. train | B. airbus |
| C. vehicle | D. taxi |
23. ____ : soldier; GOWN: PHYSICIAN. (1)
- | | |
|------------|---------|
| A. uniform | B. tent |
| C. gun | D. army |
24. Remote: ____; WIDE: NARROW. (1)
- | | |
|---------------|---------------|
| A. distant | B. control |
| C. television | D. accessible |
25. Which of the following is synonymous with the word intimidating in paragraph 2, line 2? (1)
- | | |
|----------------|------------------|
| A. frustrating | B. annoying |
| C. frightening | D. disappointing |
26. If -3, 0 and 1 are zeros of a polynomial function $p(x)$ of degree 3, then which one of the following is true about $p(x)$? (1)
- | | |
|------------------------------------|--------------------------------|
| A. $p(-1) = 0$. | B. x is a factor of $p(x)$. |
| C. $x - 3$ is a factor of $p(x)$. | D. $p(x) = x^3 + 3x$. |
27. Which one of the following is equal to $\sum_{n=1}^{48} \frac{5}{(n+1)(n+2)}$? (1)
- | | |
|--------|--------|
| A. 1.5 | B. 1.2 |
| C. 2.4 | D. 2.5 |
28. If $(\sqrt[3]{x})^{-\frac{1}{3}} = 2^{-1}$, then which one of the following is the value of x ? (1)
- | | |
|---------|---------------------|
| A. 512 | B. $\frac{1}{512}$ |
| C. -512 | D. $-\frac{1}{512}$ |
29. What is a possible value of t in the sequence 100, 98, 94, 86, t , 38, ...? (1)
- | | |
|-------|-------|
| A. 78 | B. 70 |
| C. 82 | D. 54 |
30. Let $\{a_n\}$ be a sequence defined by $a_1 = 3$, $a_2 = 2$ and for each $n \geq 2$, $a_{n+1} = na_{n-1} - a_n$. Which one of the following is equal to a_6 ? (1)
- | | |
|--------|-------|
| A. 14 | B. 56 |
| C. -14 | D. -4 |
31. How many different arrangements of the digits of the number "234523" are there? (1)
- | | |
|--------|--------|
| A. 180 | B. 720 |
| C. 360 | D. 256 |

32. In which quadrant does the terminal side of angle -710° belong? (1)

A. Second
B. Fourth
C. First
D. Third

33. If two six faced fair dice are rolled, what is the probability of getting a pair of numbers whose sum is either 6 or 12? (1)

A. $\frac{5}{36}$
B. $\frac{2}{9}$
C. $\frac{1}{6}$
D. $\frac{7}{36}$

34. If today is Monday, then what is the day after 57 days starting from today? (1)

A. Wednesday
B. Sunday
C. Monday
D. Tuesday

35. A box contains 4 black, 5 white and 3 red balls of the same size. If a ball is drawn at random, what is the probability that the ball is neither black nor red? (1)

A. $\frac{5}{12}$
B. $\frac{2}{3}$
C. $\frac{7}{12}$
D. $\frac{3}{4}$

36. A person deposited money in a microfinance that pays a simple interest rate of 12% per year. After three years, he/she received a total amount of Bir 163,200. Which one of the following was the initial amount in Bir deposited by the person? (1)

A. 140,000
B. 120,000
C. 100,000
D. 280,000

37. What is the value of k, if $\sum_{n=1}^{\infty} 5^{nk} = \frac{1}{4}$? (1)

A. 2
B. -2
C. 1
D. -1

38. Let x and y be real numbers such that $x > y$. Quantity A $x^2 + y^2$ Quantity B $2xy$ (1)

A. Quantity B is greater than quantity A.
B. The relationship cannot be determined.
C. Quantity A is greater than quantity B.
D. The two quantities are equal.

39. Quantity A 20% of 80 Quantity B 30% of 60 (1)

A. Quantity B is greater than quantity A.
B. The relationship cannot be determined.
C. Quantity A is greater than quantity B.
D. The two quantities are equal.

40. The water bill for a past month of a certain family was Bir 200. The bill consisted of a fixed charge of Bir 20 plus a charge of Bir 2 per cubic meter for the water used in the month. How many cubic meters of water did the family consumed for the past month? (1)

A. 90
B. 180
C. 110
D. 100

41. Which of the following pairs of numbers are twin primes? (1)

A. 3 and 11
B. 41 and 43
C. 2 and 3
D. 19 and 23

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42. Which of the following is true about $x^2 + 3x - 4 = 0$? (1)
- A. It has only one solution. B. It has no real solution.
C. It has no solution. D. It has two solutions.
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43. At a certain fruit shop, one mango is being sold for Bir 10 and one banana is being sold for Bir 5. If 30 fruits of mangos and bananas were purchased from the fruit shop for Bir 200, how many of the fruits were bananas? (1)
- A. 25 B. 15
C. 10 D. 20
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44. A lady wants to surprise her boyfriend on his birthday by inviting him and their friends a buffet dinner at a hotel. (1)
The maximum budget for the dinner was Bir 8,000. The hotel charges Bir 300 per person for the buffet including tax. If the lady wants to give a tip of Bir 50, then which of the following models the situation assuming that x is the total number of people?
- A. $300x + 50 \geq 8000$ B. $300x - 50 \geq 8000$
C. $300x + 50 \leq 8000$ D. $300x - 50 \leq 8000$
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45. If a tree casts a shadow of 20 meters long and at the same time a pole of 3 meters casts a shadow of 5 meters long, which of the following is the height of the tree in meters? (1)
- A. 8 B. 16
C. 4 D. 12
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46. What is the height of a building in meters, if the angle of elevation of the top of the building from a point 10 meters away from the ground floor of the building is 60° ? (1)
- A. $\frac{10\sqrt{3}}{3}$ B. 5
C. $10\sqrt{3}$ D. $5\sqrt{3}$

— END OF EXAMINATION —