

Aptitude, 2015 EC, entrance exam, version 1

Grade 12 · Aptitude · 2015 E.C.

Time allowed: 120 minutes

Questions: 52

Total marks: 52

Name _____ Grade _____ ID No. _____ Date _____

1. MAKE is to SANDWICH as DO is to (1)
 A. mistake B. favor
 C. decision D. arrangement

2. DAWN is to MORNING as DUSK is to (1)
 A. dusk B. down
 C. night D. noon

3. PRO is to FOR as _____ is to AGAINST. (1)
 A. rom B. com
 C. con D. dab

4. ARCHAEOLOGIST is related to REMAINS in the same way as _____ is related to REASONS. (1)
 A. linguist B. anarchist
 C. scientist D. analogist

5. CLAW is related to BIRD in the same way as _____ is related to BEAR. (1)
 A. feet B. fur
 C. paw D. finger

6. WIN is related to RACE in the same way as BEAT is related to: (1)
 A. team B. competition
 C. game D. referee

7. DEN is related to LIONS in the same way as NEST is related to: (1)
 A. cows B. hyenas
 C. birds D. pigs

8. DECREE (1)
 A. rank B. power
 C. verdict D. hierarchy

9. BEREAVEMENT (1)
 A. happiness B. glee
 C. pleasure D. sorrow

10. CONJECTURE (1)
 A. fact B. speculation
 C. certainty D. rumor

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- 11. ENFORCEMENT** (1)
- | | |
|-----------------|----------------|
| A. forcefulness | B. cogency |
| C. prosecution | D. involvement |
-
- 12. TRANSGRESSION** (1)
- | | |
|------------|-------------|
| A. change | B. exchange |
| C. defense | D. offense |
-
- 13. TENANT** (1)
- | | |
|-------------|---------------|
| A. landlord | B. farmer |
| C. peasant | D. provincial |
-
- 14. LENIENT** (1)
- | | |
|--------------|--------------|
| A. strict | B. common |
| C. easygoing | D. committed |
-
- 15. MISERLY** (1)
- | | |
|------------|----------------|
| A. thrift | B. extravagant |
| C. selfish | D. saving |
-
- 16. NASTY** (1)
- | | |
|---------|-------------|
| A. foul | B. horrid |
| C. nice | D. sociable |
-
- 17. Choose the word which does not fit the relation: summit, peak, pinnacle, ravine** (1)
- | | |
|-------------|-----------|
| A. summit | B. peak |
| C. pinnacle | D. ravine |
-
- 18. Choose the word which does not fit: cave, barn, den, turf** (1)
- | | |
|---------|---------|
| A. cave | B. barn |
| C. den | D. turf |
-
- 19. Choose the word which does not fit: mattress, pillow, carpet, pillowcase** (1)
- | | |
|-------------|---------------|
| A. mattress | B. pillow |
| C. carpet | D. pillowcase |
-
- 20. Choose the word which does not fit: buck, doe, bull, boar** (1)
- | | |
|---------|---------|
| A. buck | B. doe |
| C. bull | D. boar |

21. *Political issues are the integral components of any big international event including sports. It is particularly true about the countries with specific political views or those involved in international conflicts. In case of Qatar hosting World Cup 2022, the political problem is caused by its relations, or rather no relations with Israel. In fact, Qatar does not recognize Israel as a state. Thus, Israel initiated a campaign against Qatar as the location for World Cup as a part of its interventions to isolate the activity of Hamas. The major slogans included anti-terrorist ideas were followed by fans and Israel supporters around the world. The idea is to prevent funding terrorism claiming that Qatar plays a significant role in financing terrorist organizations and awarding 2022 FIFA World Cup to this country would mean the support of terrorism. Still, despite this problem and some other aspects related to not following the FIFA code of ethics by Qatar, the preparation for the World Cup is going on.* (1)

What is the big event mentioned in the passage?

- A. sports
B. 2022 world cup
C. political integrity
D. international conflicts
-

22. *same passage* (1)

One of the following is False according to the passage.

A. Israel is among the countries with specific political views.
B. Qatar is among the countries involved in international conflicts.
C. Israel does not recognize Qatar as a state.
D. Hamas is the root cause for Israel to initiated a campaign against Qatar as the location for World Cup

23. *same passage* (1)

The pronoun 'this' in paragraph 2 line 4 refers to

A. the 2022 FIFA World Cup
B. Qatar
C. Israel
D. the award

24. *Today's young people will be the stewards of our planet in the years to come, and the future of all life depends on them gaining the knowledge, skills and passion for nature necessary to transform humanity's relationship with the natural world and build a more sustainable future. If you are working with younger age groups or sensitive young people we advise viewing the videos before screening them in the classroom or assigning playlists for students to watch independently, in case of content or messaging that could cause distress. The explorable globe allows individual students, small groups or whole classes to embark on a voyage of discovery into the interconnected workings of our planet. As they follow connections around the planet, short videos pinned to the globe bring concepts and locations to life. Students may be assigned research tasks in the form of a topic presentation task or a quiz sheet, and through seeking the information required they will gain a valuable insight into the connections between topics and issues.* (1)

How are today's young people described in paragraph one?

A. that they are the agents of our planet in the years to come
B. that they are the agendas of our time
C. that they depend on the future of all their life time
D. that they do not have any contribution to the future of all life

25. *My uncle had five children named, Tolani, Abebe, Lemma, Gile and Tena. Tolani, the middle child, is one of the two females. There is an exact age interval, three years, among each child. The first child, Abebe was born in 1960 E.C. Tena is younger than Tolani but older than Lemma. The other female is older than Tolani.* (1)

Who is the youngest child?

A. Lemma
B. Tena
C. Gile
D. Tolani

-
- 26. same** (1)
- Which of the following shows the correct order of the children in age from the youngest to the oldest?
- A. Lemma, Tena, Tolani, Gile, and Abebe. B. Abebe, Gile, Tolani, Tena, and Lemma.
C. Lemma, Tolani, Tena, Gile, and Abebe. D. Abebe, Gile, Tena, Tolani and Lemma.
-
- 27. same** (1)
- How old is the middle child now? (Assuming current year? The problem says Abebe born 1960 E.C. We need current year? The exam is from 2015 E.C? Typically, E.C (Ethiopian Calendar) is about 7-8 years behind Gregorian. But the question likely expects to calculate from given information. The difference between years: children spaced 3 years. Middle child is Tolani, who is 3rd. Abebe born 1960, so the next births: 1963, 1966, 1969, 1972. Middle child is 3rd = born 1966 E.C. If the exam is taken in 2015 E.C, then age = 2015 - 1966 = 49 years. So answer 49. Options: 52, 49, 51, 48. So B. 49 years.
- A. 52 years B. 49 years
C. 51 years D. 48 years
-
- 28. same** (1)
- What is the name of the other female?
- A. Lemma B. Tena
C. Gile D. Tolani
-
- 29. Statement:** A man looking at a photograph and said, 'This is the son of the only son of my mother.' Conclusion: (1)
- A. The man's mother has two sons.
B. The man is talking about his own son.
C. The man is talking about himself.
D. The man is talking to the one on the photograph.
-
- 30. All smokers chew chat. All chat chewers drink alcohol. Which of the following statements must be true?** (1)
- A. All chat chewers are smokers. B. All that drink alcohol chew chat.
C. All alcohol drinkers are smokers. D. All smokers drink alcohol.
-
- 31. Find the two statements that together prove: Sara is a passionate science fiction writer. 1: A science fiction is written based on future expectations. 2: Sara writes science fictions. 3: Sara writes science fictions for living. 4: Sara loves science fictions. 5: Many people read science fictions written by Sara.** (1)
- A. 1 & 3 B. 3 & 5
C. 4 & 5 D. 2 & 4
-
- 32. A soccer team played 160 games and won 65 percent of them. How many games did it win?** (1)
- A. 94 B. 104
C. 114 D. 125
-
- 33. If 8% of a number is 150, then what is the number?** (1)
- A. 1225 B. 1475
C. 1625 D. 1875
-
- 34. A man bought a used car for Birr 600,000 and paid 20% deposit. How much did he still have to pay?** (1)
- A. Birr 380,000 B. Birr 420,000
C. Birr 480,000 D. Birr 500,000

35. If $R = (S + T)P / 3$, then T equals (1)
- A. $3R/P - S$ B. $(3R - S)/P$
C. $3R/P + S$ D. $(3R + S)/P$
-
36. If $a - b = 3$ and $a^2 + b^2 = 29$, then what is the value of ab ? (1)
- A. 18 B. 15
C. 12 D. 10
-
37. What is the solution set of $[5(9 - x)/3] + 1 < 6$? (1)
- A. $\{x: x < 6\}$ B. $\{x: x \leftarrow 6\}$
C. $\{x: x > 6\}$ D. $\{x: x > -6\}$
-
38. If $2x^{-0.25} = 8$, then what is the value of x ? (1)
- A. $1/256$ B. $1/32$
C. $1/64$ D. $1/16$
-
39. What least number must be added to 1056, so that the sum is completely divided by 23? (1)
- A. 5 B. 4
C. 3 D. 2
-
40. The ratio of the perimeter to the width of a rectangle is 5:1. If the area of the rectangle is 216 cm^2 , what is the length of the rectangle? (1)
- A. 18 cm B. 16 cm
C. 14 cm D. 12 cm
-
41. A family has two grandparents, two parents and three grandchildren. Average ages: grandparents 65, parents 35, grandchildren 6. What is the average age of the family? (1)
- A. $28 \frac{4}{7}$ years B. $31 \frac{1}{7}$ years
C. $32 \frac{1}{7}$ years D. $32 \frac{4}{7}$ years
-
42. The price of 10 chairs is equal to that of 4 tables. The price of 15 chairs and 2 tables together is Birr 400,000. What is the total price of 12 chairs and 3 tables? (1)
- A. 390,000 B. 388,000
C. 384,000 D. 375,000
-
43. If $3^{x-y} = 1/3$ and $3^{x+y} = 243$, then y is equal to: (1)
- A. 1 B. 3
C. 4 D. 5
-
44. The value of $(0.96^3 - 0.1^3) / (0.96^2 + 0.96 \times 0.1 + 0.1^2)$ is equal to: (1)
- A. 1.06 B. 0.97
C. 0.95 D. 0.86
-
45. What is the coefficient of x^2 in the expansion of $(x + 2/x)^{10}$? (1)
- A. 3360 B. 3430
C. 4230 D. 4860

- 46.** A is two years older than B and B is twice as old as C. If the total age of A, B and C is 27, then how old is B? (1)

A. 7
B. 9
C. 10
D. 8

47. If $x > 1$, compare Quantity A = $500\% x$ and Quantity B = $600\% (x-1)$. (1)

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

48. $3^3 + 4^3 + 5^3 + \dots + 20^3$ is equal to: (1)

A. 44,100
B. 44,091
C. 53,100
D. 53,091

49. What is the missing number in the sequence 5, 11, 19, 29, 41, ____, 71? (1)

A. 52
B. 53
C. 54
D. 55

50. What is the sum of all natural numbers between 12 and 300 which are divisible by 8? (1)

A. 5616
B. 5256
C. 4236
D. 4120

51. What is the sum of the infinite series $3 + 1/2 + 1/6 + 1/18 + 1/54 + \dots$? (1)

A. $11/4$
B. $13/3$
C. $15/4$
D. $10/3$

52. The table gives number of different types of batteries sold (in thousands) from 1992 to 1998. (See table: 1992: 55AH=108; 1998: 55AH=145). (1)

What was the approximate percentage increase in the sale of type 55AH batteries in 1998 compared to that in 1992?

A. 32%
B. 34%
C. 35%
D. 36%

— END OF EXAMINATION —