Talent Transformation (2019)

Started on	Friday, 17 August 2018, 10:00 AM
State	Finished
Completed on	Friday, 17 August 2018, 10:37 AM
Time taken	37 mins
Marks	12.00/20.00
Grade	**6.00** out of 10.00 (**60**%)

Question 1

Correct

Mark 1.00 out of 1.00

Flag question

If f(x) = 2x+2 what is f(f(3))?

Select one:

- a. 64
- b. 16
- c. 18 ✓
- d. 8

The correct answer is: 18

Question 2

Correct

Mark 1.00 out of 1.00

Flag question

If f(x) = 7 x +12, what is f-1(x) (the inverse function)?

Select one:

- a. No inverse exists
- b. 7x+12
- c. (x-12)/7 ✓
- d. 1/(7x+12)

The correct answer is: (x-12)/7

Question 3

Not answered

A permutation is often represented by the cycles it has. For example, if we permute the numbers in the natural order to 2 3 1 5 4, this is represented as (1 3 2) (54). In

Marked out of 1.00

Flag question

this the (132) says that the first number has gone to the position 3, the third number has gone to the position 2, and the second number has gone to position 1, and (5 4) means that the fifth number has gone to position 4 and the fourth number has gone to position 5. The numbers with brackets are to be read cyclically. If a number has not changed position, it is kept as a single cycle. Thus 5 2 1 3 4 is represented as (1345)(2). We may apply permutations on itself If we apply the permutation (132)(54) once, we get 2 3 1 5 4. If we apply it again, we get 3 1 2 4 5 , or (1 2 3)(4)(5) If we consider the permutation of 7 numbers (1457)(263), what is its order (how many times must it be applied before the numbers appear in their original order)?

Select one:

- a. 14
- b. 7
- c. 7! (factorial of 7)
- d. 12

The correct answer is: 7! (factorial of 7)

Question 4

Correct

Mark 1.00 out of 1.00

Flag question

What is the maximum value of x3y3 + 3 x*y when x+y = 8?

Select one:

- a. 102
- b. 256
- c. 4144 ✓
- d. 8192

The correct answer is: 4144

Question 5

Correct

Mark 1.00 out of 1.00

Flag question

Two circles of radii 5 cm and 3 cm touch each other at A and also touch a line at B and C. The distance BC in cms is?

Select one:

- a. root 68
- b. root 62
- c. root 60 ✓
- d. root 64

The correct answer is: root 60

Question 6

Correct

Mark 1.00 out of 1.00

Flag question

In Goa beach, there are three small picnic tables. Tables 1 and 2 each seat three people. Table 3 seats only one person, since two of its seats are broken. Akash, Babu, Chitra, David, Eesha, Farooq, and Govind all sit at seats at these picnic tables. Who sits with whom and at which table are determined by the following constraints: a. Chitra does not sit at the same table as Govind. b. Eesha does not sit at the same table as David. c. Farooq does not sit at the same table as Chitra. d. Akash does not sit at the same table as Babu. e. Govind does not sit at the same table as Farooq. Which of the following is a list of people who could sit together at table 2?

Select one:

- a. Farooq, David, Eesha.
- b. Chitra, Govind, David.
- c. Govind, Eesha, Akash ✓
- d. Babu, Farooq, Chitra

The correct answer is: Govind, Eesha, Akash

Question 7

Incorrect

Mark -0.33 out of 1.00

Flag question

There are a number of chocolates in a bag. If they were to be equally divided among 14 children, there are 10 chocolates left. If they were to be equally divided among 15 children, there are 8 chocolates left. Obviously, this can be satisfied if any multiple of 210 chocolates are added to the bag. What is the remainder when the minimum feasible number of chocolates in the bag is divided by 9?

Select one:

- a. 4
- b. 2
- c. 5 ✗
- d. 6

The correct answer is: 2

Question 8

Correct

Mark 1.00 out of 1.00

Flag question

Let f(m,n) =45*m + 36*n, where m and n are integers (positive or negative) What is the minimum positive value for f(m,n) for all values of m,n (this may be achieved for various values of m and n)?

Select one:

- a. 6
- b. 18
- c. 9 ✓

d. 5

The correct answer is: 9

Question 9

Correct

Mark 1.00 out of 1.00

Flag question

What is the largest number that will divide 90207, 232585 and 127986 without leaving a remainder?

Select one:

a. 257 ✓

b. 498

c. 905

d. 351

The correct answer is: 257

Question 10

Correct

Mark 1.00 out of 1.00

Flag question

What is the sum of the squares of the first 20 natural numbers (1 to 20)?

Select one:

a. 5650

b. 2000

c. 44100

d. 2870 ✓

The correct answer is: 2870

Question 11

Incorrect

Mark -0.33 out of 1.00

Flag question

We have an equal arms two pan balance and need to weigh objects with integral weights in the range 1 to 40 kilo grams. We have a set of standard weights and can place the weights in any pan. . (i.e) some weights can be in a pan with objects and some weights can be in the other pan. The minimum number of standard weights required is:

Select one:

a. 4

b. 10

c. 6

d. 5 ✗

The correct answer is: 4

Question 12

Correct

Mark 1.00 out of 1.00

Flag question

A white cube(with six faces) is painted red on two different faces. How many different ways can this be done (two paintings are considered same if on a suitable rotation of the cube one painting can be carried to the other)?

Select one:

- a. 30
- b. 2 ✓
- c. 15
- d. 4

The correct answer is: 2

Question 13

Correct

Mark 1.00 out of 1.00

Flag question

How many divisors (including 1, but excluding 1000) are there for the number 1000?

Select one:

- a. 15 ✓
- b. 10
- c. 16
- d. 31

The correct answer is: 15

Question 14

Not answered

Marked out of 1.00

Flag question

In the polynomial f(x) =2*x^4 - 49*x^2 +54, what is the product of the roots, and what is the sum of the roots (Note that x^n denotes the x raised to the power n, or x multiplied by itself n times)?

Select one:

- a. 54,2
- b. 49/2,54
- c. 49,27
- d. 27,0

The correct answer is: 27,0

Question 15

Not answered

Marked out of 1.00

Flag question

In the polynomial f(x) = x^5 + a*x^3 + b*x^4 +c*x + d, all coefficients a, b, c, d are integers. If 3 + sqrt(7) is a root, which of the following must be also a root?(Note that x^n denotes the x raised to the power n, or x multiplied by itself n times. Also sqrt(u) denotes the square root of u, or the number which when multiplied by itself, gives the number u)?

Select one:

- a. 3+sqrt(21)
- b. 5
- c. sqrt(7) + sqrt(3)
- d. 3-sqrt(7)

The correct answer is: 3-sqrt(7)

Question 16

Correct

Mark 1.00 out of 1.00

Flag question

28a + 30 b +31c =365 find a+b+c if a.b.c are natural numbers

Select one:

- a. 14
- b. 12 ✓
- c. 13
- d. 15

The correct answer is: 12

Question 17

Correct

Mark 1.00 out of 1.00

Flag question

P is 30% of Q Q is 20% of M M is 50% of N what is P/N equal to.

Select one:

- a. 2.1
- b. 0.3
- c. 0.003
- d. 0.03 ✓

The correct answer is: 0.03

Question 18

Correct

Mother +daughter+infant age is 74. Mother age is 46 more then daughter and infant. And infant age is 0.4 of daughter. Find daughters age.

Mark 1.00 out of 1.00

Flag question

Select one:

- a. 11
- b. 9
- c. 10 ✓
- d. 15

The correct answer is: 10

Question 19

Not answered

Marked out of 1.00

Flag question

A finishes a work in 8 hrs B finishes a work in 10 hrs C finishes a work in 12 hrs A,B,C work together but A leaves after 2 hrs find the time t taken by B & C.

Select one:

- a. $3\frac{1}{22}$
- b. $2\frac{1}{11}$
- c. $11\frac{1}{22}$
- d. $7\frac{5}{66}$

The correct answer is: $2\frac{1}{11}$

Question 20

Incorrect

Mark -0.33 out of 1.00

Flag question

There are exactly 4 Thursdays and 4 Sundays in a month of 31. Find the first day.

Select one:

- a. WEDNESDAY
- b. SUNDAY
- c. MONDAY
- d. FRIDAY ✗

The correct answer is: MONDAY

Finish review

QUIZ NAVIGATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Show one page at a time
Finish review