TGT MATHEMATICS

1. Who launched the 90-day campaign 'Azadi Se Antyodaya Tak'?

(A) Amit Shah

(B) Piyush Goyal

(C) Kiren Rijiju

(D) Giriraj Singh

Correct Answer : (D)

2. Which country signed agreements on training staff and IT cooperation to deepen railway cooperation In Sep 2022?

(A) Russia-India

(B) Ukraine-Turkey

(C) India-Bangladesh

(D) America-India

Correct Answer : (C)

3. The "Donbas War" is currently being fought in

(A) Serbia

(B) Ukraine

(C) Syria

(D) Lebanon

Correct Answer : (B)

4. Pedagogy is the study of

(A) education

(B) learning process

(C) teaching methods

(D) guiding students

Correct Answer : (C)

5. Dyslexia is associated with

(A) mental disorder

(B) mathematical disorder

(C) reading disorder

(D) behavioural disorder

Correct Answer : (C)

6. Which government organizations will develop guidelines for the education of gifted children?

(A) NCERT and NCFCS

(B) NCERT and NCTE

(C) NCERT and NTA

(D) NCERT and SCERT

Correct Answer : (B)

7. The mode of the data 23, 26, 22, 29, 23, 29, 26, 29, 22, 23 is :
(A) 23 and 29
(B) 23 only
(C) 29 only
(D) 26 only
Correct Answer : (A)

8. Which of the following statements is not true?
(A) When two positive integers are added, we always get a positive integer.
(B) When two negative integers are added we always get a negative integer.

(C) When a positive integer and a negative integer is added, we always get a negative integer.
(D) Additive inverse of an integer 2 is (– 2) and additive inverse of (– 2) is 2

Correct Answer : (C)

9. In Δ ABC & Δ PQR, If AB = QR, BC = PR and CA = PQ, then :
(A) Δ ABC ≅ Δ PQR

(B) Δ CBA ≅ Δ PRQ
(C) Δ BAC ≅ Δ RPQ
(D) Δ PQR ≅ Δ BCA
Correct Answer : (B)

10. which statement is not true for Circle:
(A) Two chords AB and CD of a circle are each at distances 4 cm from the centre.
Then AB = CD.
(B) There is one and only one circle passing through three given non-collinear points
(C) A circle of radius 3 cm can be drawn through two points A, B such that AB = 6
cm
(D) ABCD is a cyclic quadrilateral such that $\angle A = 85°$, $\angle B = 70°$, $\angle C = 95°$ and $\angle D = 110°$.
Correct Answer : (C)

11. The like terms in $3x (3 - 2y)$ and $2 (xy + x^2)$ are:
(A) $9x$ and $2x^2$
(B) $- 6xy$ and $2xy$
(C) $9x$ and $2xy$
(D) $- 6xy$ and $2x^2$

Correct Answer : (B)

12. The value of the expression
$[\cosec (75° + \theta) - \sec (15° - \theta) - \tan (55° + \theta) + \cot (35° - \theta)]$ is:

(A) -1
(B) 0
(C) 1
(D) 3
Correct Answer : (B)

13. Ordinate(y cordinate) of the point which divides the line segment joining the points
$(4, - 3)$ and $(8, 5)$ in the ratio 3 : 1 internally is :
(A) 7
(B) -7
(C) 3
(D) -3
Correct Answer : (C)

14. ABCD is a trapezium in which AB || DC and ∠A = ∠B = 45˚. Then angles C and D of the trapezium are:
(A) 45 ˚45 ˚
(B) 90 ˚ 135 ˚
(C) 45 ˚ 135 ˚
(D) 135 ˚ 135 ˚
Correct Answer : (D)

15. A motor boat whose speed is 18 km/h in still water takes 1 hour more to go 24 km upstream than to return downstream to the same spot. Find the speed of the stream
(A) 54 km/h.
(B) 6 km/h.
(C) 8 km/h.
(D) 18 km/h.
Correct Answer : (B)

16. The Value of x, if $10000x = (9982)^2 - (18)^2$
(A) 99820
(B) 9985
(C) 9970
(D) 9964
Correct Answer : (D)

17. Suppose for the principal P, rate R% and time T, the simple interest is S and compound interest is C. Consider the possibilities:
(i) $C > S$ (ii) $C = S$ (iii) $C < S$ Then

(A) only (i) is correct
(B) either (i) or (ii) is correct
(C) either (ii) or (iii) is correct
(D) only (iii) is correct.
Correct Answer : (B)

18. If $3(x-1) \leq 2(x-3)$ then the value of x lies in the interval
(A) [-3, ∞)
(B) (-∞, - 3]
(C) [3, ∞)
(D) (-∞, 3]
Correct Answer : (B)

19. Graph of the Polynomial does not pass through the origin is
:
(A) $y = x^4$
(B) $y = x^3 + x^2 + x$

(C) $y = x^2 + x$
(D) $y = x^3 + 1$
Correct Answer : (D)

CASE STUDY BASED QUESTION:

To make the teaching, and learning process easier, creative, and innovative, A teacher brings clay in the classroom to teach the topic of mensuration. She thought this method of teaching is more interesting, leave a long-lasting impact She forms a cylinder of radius 6 cm and a height 8 cm with the clay, then she moulds the cylinder into a sphere and asks some questions to the students [use $\pi = 3.14$]

20. The volume of the sphere so formed:
    (A) 902.32 cm^3
    (B) 899.34 cm^3
    (C) 904.32 cm^3
    (D) 999.33 cm^3

Answer: (B) 904.32 cm^3