TGT MATHEMATICS

 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)

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9. In \triangle ABC & \triangle PQR, If AB = QR, BC = PR and CA = PQ, then :
(A) \triangle ABC \cong \triangle PQR
(B) \triangle CBA \cong \triangle PRQ
(C) \triangle BAC \cong \triangle RPQ
(D) \triangle PQR \cong \triangle 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
(D) ABCD is a cyclic quadrilateral such that \angle A = 85^{\circ}, \angle B = 70^{\circ}, \angle C = 95^{\circ} and \angle D
= 110^{\circ}.
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
[\csc{(75^{\circ} + \theta)} - \sec{(15^{\circ} - \theta)} - \tan{(55^{\circ} + \theta)} + \cot{(35^{\circ} - \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)
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14. ABCD is a trapezium in which AB \parallel DC and \angle A = \angle B = 45°. Then angles C and D of the trapezium are: (A) 45 °45° (B) 90° 135° (C) 45° 135° (D) 135° 135° (D) 135° 135° (C)
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 $3(x-1) \le 2(x-3)$ then the value of x lies in the interval (A) $[-3, \infty)$ (B) $(-\infty, -3]$ (C) $[3, \infty)$ (D) $(-\infty, 3]$ Correct Answer: (B)
 19. Graph of the Polynomial does not pass through the origin is : (A) y = x⁴ (B) y = x³ + x² + x

(C)
$$y = x^2 + x$$

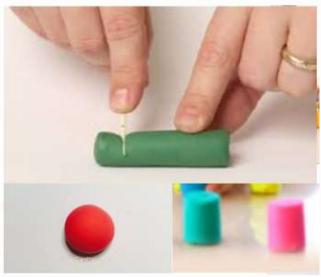
(D) $y = x^3 + 1$

(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:

- $(A)902.32 \text{ cm}^3$
- (B) 899.34 cm^3
- $(C) 904.32 \text{ cm}^3$
- $(D)999.33 \text{ cm}^3$

(B) 904.32 cm^3 Answer: