

## **COMPOSITION**

1. You are Personnel Manager of Green Bio-Products Ltd. , Sector 18, Industrial Area, Faridabad. You need an efficient P.A. /stenographer for your office. Write an advertisement for the ‘Situation Vacant’ column of a local daily.
2. Hotel Lake View, Udaipur, needs young & smart lady receptionist. Write an advertisement to be published in the ‘Situation Vacant’ column of a local newspaper.
3. You need two lady checkers for Globe Exports, Virat Nagar, Kolkata 700085. Write an advertisement to be published in the ‘Situation Vacant’ column of The Morning Star, Kolkata.
4. You are Seema/Sudhir, the Cultural Secretary of your school. Write a notice for your school notice board in 50 words giving details to your schoolmates.
5. You are Kamal/Komal. Your school had decided to organize a cultural programme to raise funds for the victims of Orissa super cyclone. As the cultural Secretary, write a notice in about 50 words giving details to your schoolmates.
6. You are Navin/Namita, Head Boy/Girl of your school. You have organized a talk on career guidance by Dr. Arun Bajaj, the eminent counselor SAHYOG. Write a notice in about 50 words inviting students of class 11<sup>th</sup> & 12<sup>th</sup> to attend the lecture.
7. As manager, Spring Blossoms School, Dharwar, place an order for (at least 4 items ) school furniture. Write a letter to Curzon & Co., Furniture Manufacturers Dharwar.
8. As a Sails Manager, Rising Sun Company, Chawri Bazar, Delhi, write to Perfect Paper Mills, Periyar (Tamil Nadu) reminding them of the delay in the execution of your order.
9. Write a letter to the commissioner of Police requesting him to be the Chief Guest at your School Sports Day function to be held at your school playground. You are Michel/Mary, School Pupil Leader, Crescent Senior Secondary School , Civil Lines, Bopal.
10. Write an article on Lok Sabha Elections 2019.

## **LITERATURE**

1. What impression do you form of cousin Mourad?
2. Comment on the significance of the title of the story The Address.
3. What was special about Rangappa? How did the villagers react to it?
4. What factors made Einstein’s life in Munich miserable? What did he realise after six months?
5. Write a note on the title of the play ‘Mother’s Day’.
6. What impression do you form of Andrew Manson on the basis of the story ‘Birth’?

By :- Mrs. SANGEETA YADAV

# SUMMER HOLIDAYS HOMEWORK

CLASS = 11<sup>th</sup> Arts

## History

- 1) Make an assignment on topic : 'Evolution of Early Human and also discuss their language and ways of obtaining food.
- 2) Find out at least 15 short Ques./Ans. from chapter - 'Writing And City Life'.

## Geography

- ① Find out short Ques./Ans. from lesson -
  - a) Rocks and Minerals
  - b) Geomorphic processes
- ② Make an assignment of 'Wegener's Theory'.

## Political Science

- ① Make an assignment of ch-1 & 2.
- ② Make a chart of Fundamental Rights.

- ③ Learn NCERT Questions/Answers of both chapters - 1 & 2.
- ④ Write and learn new cabinet ministry which is going to be form after 23<sup>rd</sup> May.

कक्षा: 10+1 A  
विषय: हिन्दी

classmate

Date \_\_\_\_\_

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1. समाचार-पत्र, पत्रिका, दूरदर्शन, इंटरनेट आदि जनसंचार के माध्यमों के विषय में विस्तारपूर्वक जानकारी प्राप्त करो।
2. दो अध्याय पढ़ना और पूरनों के उत्तर देने की कोशिश करना।

# Sarvodya School of Science, Imloata

## Mathematics

Class - 11th Coaching

### Holiday's

### Homework

- Which of the following relation is correct  
 (a)  $\sin 1^\circ > \sin 1$  (b)  $\sin 1 > \sin 1^\circ$  (c)  $\sin 1 = \sin 1^\circ$  (d)  $\frac{\pi}{180} \sin 1 = \sin 1^\circ$  [WB JEE 1991]
- The radius of the circle whose arc of length 15 cm makes an angle of  $3/4$  radian at the centre is  
 (a) 10 cm (b) 20 cm (c)  $11\frac{1}{4}$  cm (d)  $22\frac{1}{2}$  cm [Karnataka CET 2001]
- If  $\tan \theta = \frac{-4}{3}$ , then  $\sin \theta =$   
 (a)  $\frac{-4}{5}$  but not  $\frac{4}{5}$  (b)  $-\frac{4}{5}$  or  $\frac{4}{5}$  (c)  $\frac{4}{5}$  but not  $-\frac{4}{5}$  (d) None of these [Orissa JEE 2002; IIT 1979]
- If  $f(x) = \cos^2 x + \sec^2 x$ , then  
 (a)  $f(x) < 1$  (b)  $f(x) = 1$  (c)  $1 < f(x) < 2$  (d)  $f(x) \geq 2$  [MNR 1984]
- If  $x = \sec \theta + \tan \theta$ , then  $x + \frac{1}{x} =$   
 (a) 1 (b)  $2 \sec \theta$  (c) 2 (d)  $2 \tan \theta$  [MP PET 1984]
- If A lies in the second quadrant and  $3 \tan A + 4 = 0$  then the value of  $2 \cot A - 5 \cos A + \sin A$  is equal to  
 (a)  $\frac{-53}{10}$  (b)  $\frac{-7}{10}$  (c)  $\frac{7}{10}$  (d)  $\frac{23}{10}$  [Haryana CEE 1991]
- $\tan 1^\circ \tan 2^\circ \tan 3^\circ \tan 4^\circ \dots \tan 89^\circ =$   
 (a) 1 (b) 0 (c)  $\infty$  (d)  $1/2$  [MP PET 1998, 2001]
- The incorrect statement is  
 (a)  $\sin \theta = -\frac{1}{5}$  (b)  $\cos \theta = 1$  (c)  $\sec \theta = \frac{1}{2}$  (d)  $\tan \theta = 20$  [MNR 1991]
- If  $\cos \theta - \sin \theta = \sqrt{2} \sin \theta$ , then  $\cos \theta + \sin \theta$  is equal to  
 (a)  $\sqrt{2} \cos \theta$  (b)  $\sqrt{2} \sin \theta$  (c)  $2 \cos \theta$  (d)  $-\sqrt{2} \cos \theta$  [WB JEE 1981]
- If  $\sec \theta + \tan \theta = p$ , then  $\tan \theta$  is equal to  
 (a)  $\frac{2p}{p^2 - 1}$  (b)  $\frac{p^2 - 1}{2p}$  (c)  $\frac{p^2 + 1}{2p}$  (d)  $\frac{2p}{p^2 + 1}$  [MP PET 1991]
- If  $\sin \theta - \cos \theta = 1$ , then  $\sin \theta \cos \theta =$   
 (a) 0 (b) 1 (c) 2 (d)  $1/2$  [Karnataka CET 1991]
- The value of  $\cos 1^\circ \cos 2^\circ \cos 3^\circ \dots \cos 179^\circ$  is  
 (a)  $\frac{1}{\sqrt{2}}$  (b) 0 (c) 1 (d) None of these [Karnataka CET 1991]

13. If  $\tan \theta = +\frac{1}{\sqrt{5}}$  and  $\theta$  lies in the 1<sup>st</sup> quadrant, then  $\cos \theta$  is

[Karnataka CET 1994]

- (a)  $\frac{1}{\sqrt{6}}$  (b)  $-\frac{1}{\sqrt{6}}$  (c)  $\frac{\sqrt{5}}{\sqrt{6}}$  (d)  $-\frac{\sqrt{5}}{\sqrt{6}}$

14. If  $A$  lies in the third quadrant and  $3 \tan A - 4 = 0$ , then  $5 \sin 2A + 3 \sin A + 4 \cos A =$

[EAMCET 1994]

- (a) 0 (b)  $\frac{-24}{5}$  (c)  $\frac{24}{5}$  (d)  $\frac{48}{5}$

15.  $(\sec^2 \theta - 1)(\operatorname{cosec}^2 \theta - 1) =$

[Karnataka CET 1994]

- (a) 0 (b) 1 (c)  $\sec \theta \cdot \operatorname{cosec} \theta$  (d)  $\sin^2 \theta - \cos^2 \theta$

16. If  $\tan \theta = \frac{20}{21}$ ,  $\cos \theta$  will be

[MP PET 1994]

- (a)  $\pm \frac{20}{41}$  (b)  $\pm \frac{1}{21}$  (c)  $\pm \frac{21}{29}$  (d)  $\pm \frac{20}{21}$

17. If  $\operatorname{cosec} A + \cot A = \frac{11}{2}$ , then  $\tan A$  equal to

[Roorkee 1994]

- (a)  $\frac{21}{22}$  (b)  $\frac{15}{16}$  (c)  $\frac{44}{117}$  (d)  $\frac{117}{43}$

18. If  $\sin \theta = \frac{24}{25}$  and  $\theta$  lies in the second quadrant, then  $\sec \theta + \tan \theta$  equal to

[MP PET 1994]

- (a) -3 (b) -5 (c) -7 (d) -9

19. If  $5 \tan \theta = 4$ , then  $\frac{5 \sin \theta - 3 \cos \theta}{5 \sin \theta + 2 \cos \theta}$  equal to

[Karnataka CET 1994]

- (a) 0 (b) 1 (c)  $\frac{1}{6}$  (d) 6

20.  $\frac{1 + \cos \theta}{\sin^2 \theta}$  equal to

[Karnataka CET 1994]

- (a) 0 (b) 1 (c)  $\frac{1}{1 - \cos \theta}$  (d)  $\frac{1}{1 + \cos \theta}$

21. The expression  $\frac{1}{\tan A + \cot A}$  simplifies to

[SCRA 1994]

- (a)  $\sec A \operatorname{cosec} A$  (b)  $\sin A \cos A$  (c)  $\tan 2A$  (d)  $\sin 2A$

22. If for real values of  $x$ ,  $\cos \theta = x + \frac{1}{x}$ , then

[MP PET 1994]

- (a)  $\theta$  is an acute angle (b)  $\theta$  is a right angle (c)  $\theta$  is an obtuse angle (d) No value of  $\theta$  is possible

23. If  $\sin x + \operatorname{cosec} x = 2$ , then  $\sin^n x + \operatorname{cosec}^n x$  is equal to

[UPSEAT 2004]

- (a) 2 (b)  $2^n$  (c)  $2^{n-1}$  (d)  $2^{n-2}$

24. If  $\sin \theta + \sin^2 \theta + \sin^3 \theta = 1$ , then  $\cos^6 \theta - 4 \cos^4 \theta + 8 \cos^2 \theta =$

- (a) 4 (b) 2 (c) 1 (d) None of these

25. One root of the equation  $\cos x - x + \frac{1}{2} = 0$  lies in the interval

[Haryana CEE 1994]

- (a)  $\left[0, \frac{\pi}{2}\right]$  (b)  $\left[-\frac{\pi}{2}, 0\right]$  (c)  $\left[\frac{\pi}{2}, \pi\right]$  (d)  $\left[\pi, \frac{3\pi}{2}\right]$

26. If  $\frac{2 \sin \alpha}{1 + \cos \alpha + \sin \alpha} = y$ , then  $\frac{1 - \cos \alpha + \sin \alpha}{1 + \sin \alpha} =$

[BIT Ranchi 1996; Orissa JEE 2004]

- (a)  $\frac{1}{y}$  (b)  $y$  (c)  $1 - y$  (d)  $1 + y$

27. If  $x \sin \theta - y \cos \theta = 0$  and  $x \sin^3 \theta + y \cos^3 \theta = \sin \theta \cdot \cos \theta$ , then  $x^2 + y^2$  is equal to  
 (a) 0 (b) 2 (c) 4 (d) 1 [J & K 2005]
28. If  $\theta$  and  $\phi$  are angles in the 1<sup>st</sup> quadrant such that  $\tan \theta = 1/7$  and  $\sin \phi = 1/\sqrt{10}$ . Then  
 (a)  $\theta + 2\phi = 90^\circ$  (b)  $\theta + 2\phi = 60^\circ$  (c)  $\theta + 2\phi = 30^\circ$  (d)  $\theta + 2\phi = 45^\circ$  [Haryana CEE 1995]
29. The value of  $\theta$  lying between 0 and  $\pi/2$  and satisfying the equation  $\begin{vmatrix} 1 + \sin^2 \theta & \cos^2 \theta & 4 \sin 4\theta \\ \sin^2 \theta & 1 + \cos^2 \theta & 4 \sin 4\theta \\ \sin^2 \theta & \cos^2 \theta & 1 + 4 \sin 4\theta \end{vmatrix} = 0$   
 (a)  $\frac{7\pi}{24}$  or  $\frac{11\pi}{24}$  (b)  $\frac{5\pi}{24}$  (c)  $\frac{\pi}{24}$  (d) None of these [IIT 1988; MNR 1992; Kurukshetra CEE 1998; DCE 1996]
30. If  $\frac{3\pi}{4} < \alpha < \pi$ , then  $\sqrt{\operatorname{cosec}^2 \alpha + 2 \cot \alpha}$  is equal to  
 (a)  $1 + \cot \alpha$  (b)  $1 - \cot \alpha$  (c)  $-1 - \cot \alpha$  (d)  $-1 + \cot \alpha$  [Pb. CET 2000, AMU 2001; MP PET 2004]
31. If for all real values of  $x$ ,  $\frac{4x^2 + 1}{64x^2 - 96x \sin \alpha + 5} < \frac{1}{32}$ , then  $\alpha$  lies in the interval  
 (a)  $(0, \frac{\pi}{3})$  (b)  $(\frac{\pi}{3}, \frac{2\pi}{3})$  (c)  $(\frac{2\pi}{3}, \pi)$  (d)  $(\frac{4\pi}{3}, \frac{5\pi}{3})$  [Roorkee 1998]
32. If  $\tan \theta = \sqrt{\frac{3}{2}}$ , then the sum of the infinite series  $1 + 2(1 - \cos \theta) + 3(1 - \cos \theta)^2 + 4(1 - \cos \theta)^3 + \dots$  is  
 (a)  $\frac{2}{3}$  (b)  $\frac{\sqrt{3}}{4}$  (c)  $\frac{5}{2\sqrt{2}}$  (d)  $\frac{5}{2}$  [AMU 2002]
33. Let  $A_0 A_1 A_2 A_3 A_4 A_5$  be a regular hexagon inscribed in a circle of unit radius. Then the product of the lengths of the line segments  $A_0 A_1$ ,  $A_0 A_2$  and  $A_0 A_4$  is  
 (a)  $\frac{3}{4}$  (b)  $3\sqrt{3}$  (c)  $\frac{3}{2}$  (d)  $\frac{3\sqrt{3}}{2}$  [IIT 1998]
- Trigonometrical Ratios of Allied Angles**
34. If  $x \sin 45^\circ \cos^2 60^\circ = \frac{\tan^2 60^\circ \operatorname{cosec} 30^\circ}{\sec 45^\circ \cot^2 30^\circ}$ , then  $x =$   
 (a) 2 (b) 4 (c) 8 (d) 16 [Kerala (Engg.) 2002]
35.  $\cos A + \sin(270^\circ + A) - \sin(270^\circ - A) + \cos(180^\circ + A) =$   
 (a) -1 (b) 0 (c) 1 (d) None of these [MP PET 1990]
36.  $\sin(\pi + \theta) \sin(\pi - \theta) \operatorname{cosec}^2 \theta =$   
 (a) 1 (b) -1 (c)  $\sin \theta$  (d)  $-\sin \theta$  [EAMCET 1980]
37. The value of  $\sin 600^\circ \cos 330^\circ + \cos 120^\circ \sin 150^\circ$  is  
 (a) -1 (b) 1 (c)  $\frac{1}{\sqrt{2}}$  (d)  $\frac{\sqrt{3}}{2}$  [MP PET 1994]
38. If  $A = 130^\circ$  and  $x = \sin A + \cos A$ , then  
 (a)  $x > 0$  (b)  $x < 0$  (c)  $x = 0$  (d)  $x \leq 0$  [Karnataka CET 1989]
39. The value of  $\sin 10^\circ + \sin 20^\circ + \sin 30^\circ + \dots + \sin 360^\circ$  is equal to  
 (a) 0 (b) 1 (c)  $\sqrt{3}$  (d) 2 [Pb. CET 2004]
40. The value of  $\tan 7\frac{1}{2}^\circ$  is equal to  
 (a)  $\sqrt{6} + \sqrt{3} + \sqrt{2} - 2$  (b)  $\sqrt{6} - \sqrt{3} + \sqrt{2} - 2$  (c)  $\sqrt{6} - \sqrt{3} + \sqrt{2} + 2$  (d)  $\sqrt{6} - \sqrt{3} - \sqrt{2} - 2$  [J & K 2005]

41. The value of  $\cos(270^\circ + \theta)\cos(90^\circ - \theta) - \sin(270^\circ - \theta)\cos\theta$  is  
 (a) 0 (b) -1 (c) 1/2 (d) 1 [Karnataka CET 2005]
42.  $\tan\theta \sin\left(\frac{\pi}{2} + \theta\right)\cos\left(\frac{\pi}{2} - \theta\right) =$   
 (a) 1 (b) 0 (c)  $\frac{1}{\sqrt{2}}$  (d) None of these [EAMCET 1981]
43.  $\sin^2 5^\circ + \sin^2 10^\circ + \sin^2 15^\circ + \dots + \sin^2 85^\circ + \sin^2 90^\circ =$   
 (a) 7 (b) 8 (c) 9 (d)  $9\frac{1}{2}$  [Karnataka CET 1999, 96]
44. Values of  $\theta(0 < \theta < 360^\circ)$  satisfying  $\operatorname{cosec}\theta + 2 = 0$  are  
 (a)  $210^\circ, 300^\circ$  (b)  $240^\circ, 300^\circ$  (c)  $210^\circ, 240^\circ$  (d)  $210^\circ, 330^\circ$  [EAMCET 1994]
45. The value of  $\tan(-945^\circ)$  is  
 (a) -1 (b) -2 (c) -3 (d) -4 [MP PET 1997]
46. The value of  $\frac{\cot 54^\circ}{\tan 36^\circ} + \frac{\tan 20^\circ}{\cot 70^\circ}$  is  
 (a) 2 (b) 3 (c) 1 (d) 0 [Karnataka CET 1999]
47.  $\tan 9^\circ - \tan 27^\circ - \tan 63^\circ + \tan 81^\circ =$   
 (a) 1/2 (b) 2 (c) 4 (d) 8 [Roorkee 1989]
48.  $\cos 1^\circ + \cos 2^\circ + \cos 3^\circ + \dots + \cos 180^\circ =$   
 (a) 0 (b) 1 (c) -1 (d) 2 [Karnataka CET 2003]
49. If  $\tan(A-B) = 1$ ,  $\sec(A+B) = \frac{2}{\sqrt{3}}$ , then the smallest positive value of  $B$  is  
 (a)  $\frac{25}{24}\pi$  (b)  $\frac{19}{24}\pi$  (c)  $\frac{13}{24}\pi$  (d)  $\frac{11}{24}\pi$  [Kerala (Engg.) 2002]
50. If  $x = \sin 130^\circ \cos 80^\circ$ ,  $y = \sin 80^\circ \cos 130^\circ$ ,  $z = 1 + xy$ , which one of the following is true  
 (a)  $x > 0, y > 0, z > 0$  (b)  $x > 0, y < 0, 0 < z < 1$  (c)  $x > 0, y < 0, z > 1$  (d)  $x < 0, y < 0, 0 < z < 1$  [AMU 1999]