

I. Choose the correct answer:  $6 \times \frac{1}{2} = 3$

1. LED stands for \_\_\_\_\_.
  - a) Light Emitter Diode
  - b) Least Emitter Diode
  - c) Light Emitting Diode
  - d) Least Emitting Diode
2. \_\_\_\_\_ is the SI unit of power.
  - a) Watt
  - b) Volt
  - c) Ampere
  - d) Joule
3. The resistivity of Chromium is \_\_\_\_\_.
  - a)  $6.84 \times 10^{-8} \Omega\text{m}$
  - b)  $12.9 \times 10^{-8} \Omega\text{m}$
  - c)  $1.6 \times 10^{-8} \Omega\text{m}$
  - d)  $7.84 \times 10^{-8} \Omega\text{m}$
4. Waves produced during an earthquake are called \_\_\_\_\_ waves.
  - a) audible
  - b) ultrasonic
  - c) infrasonic
  - d) none of the above
5. Velocity of sound in the atmosphere of a planet is  $500\text{ms}^{-1}$ .  
The minimum distance between the sources of sound and the obstacle to hear the echo should be \_\_\_\_\_.
  - a) 17m
  - b) 20m
  - c) 25m
  - d) 50m
6. Where will you create category of blocks?
  - a) Block Palette
  - b) Block menu
  - c) Script area
  - d) Sprite

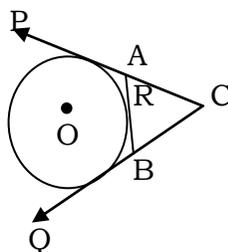
II. Answer any five in brief:  $5 \times 2 = 10$

7. What happens to the resistance as the conductor is made thicker?
8. Match the following:
  - a) Electric Current - ohm meter
  - b) Potential difference - Kilowatt hour
  - c) Specific resistance - Ampere
  - d) Electrical energy - Volt
  - Watt
9. Draw a diagram to show three resistors are connected in series.
10. An electrical iron is carrying 2A at 120V. Find the resistance of the device?

11. Two observers are stationed in two boats 4.5km apart. A sound signal sent by one under water, reaches the other after 3 seconds. What is the speed of sound in the water?
  12. We cannot talk to one another on the surface of moon. Why?
  13. Write any two differences between sound and light waves.
- III. Answer any five in detail:  $5 \times 4 = 20$
14. State two conditions necessary for hearing an echo.
  15. Write about the effect of density in sound.
  16. If air temperature can reach  $50^\circ\text{C}$  then what is the velocity of sound in air at that temperature? ( $V_0 = 33/\text{ms}^{-1}$ )
  17. Write a short note on mega phone.
  18. a) What is meant by electric current?  
b) Which instrument is used to measure the electric current?  
How should it be connected in a circuit?
  19. Define one watt.
  20. A car battery supplies 48J of energy at 12V over a certain period of time. Determine the charge moved during this period.
- IV. Answer any one in detail:  $1 \times 7 = 7$
21. Draw and write in detail about resistors connected in parallel.
  22. a) What do you understand by the term ultrasonic vibration?  
b) State any five uses of ultrasonic vibrations?
  23. A source of sound is moving with a velocity of  $50\text{ms}^{-1}$  towards a stationary listener. The Listener measures the frequency of the source as 1000 Hz. What will be the apparent frequency of the source when it is moving away from the listener after crossing him? (velocity of sound in the medium is  $330 \text{ms}^{-1}$  )

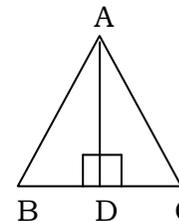
I. Choose the correct answer: 10x<sup>1</sup>/<sub>2</sub>=5

- If the slope of the line PQ is  $\frac{1}{\sqrt{3}}$  then slope of the perpendicular bisector of PQ is \_\_\_\_\_.  
 a)  $\sqrt{3}$                       b)  $-\sqrt{3}$                       c)  $\frac{1}{\sqrt{3}}$                       d) 0
- If (5,7), (3,P) and (6,6) are collinear, then value of P is \_\_\_\_\_.  
 a) 3                                  b) 6                                  c) 9                                  d) 12
- If A is a point on the Y-axis whose ordinate is 8 and B is a point on the X-axis whose abscissa is 5 then the equation of the line AB is  
 a)  $8x + 5y = 40$               b)  $8x - 5y = 40$               c)  $x = 8$                       d)  $y = 5$
- When proving that a quadrilateral is a trapezium, it is necessary to show  
 a) two sides are parallel  
 b) two parallel and two non-parallel sides  
 c) opposite sides are parallel  
 d) all sides are of equal length
- In figure CP and CQ are tangents to a circle with centre at O. ARB is another tangent touching the circle at R. If CP=11cm and BC=7cm, then the length of BR is \_\_\_\_\_.  
 a) 6cm    b) 5cm    c) 8cm    d) 4cm

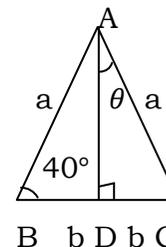


- If in  $\Delta ABC$ ,  $DE \parallel BC$ .  $AB=3.6$ cm,  $AC=2.4$ cm and  $AD=2.1$ cm then the length of AE is  
 a) 1.4cm                      b) 1.8cm                      c) 1.2cm                      d) 1.05cm

7. In the adjacent figure  $\angle BAC=90^\circ$  and  $AD \perp BC$  then



- $BD \cdot CD = BC^2$     b)  $AB \cdot AC = BC^2$     c)  $BD \cdot CD = AD^2$     d)  $AB \cdot AC = AD^2$
- Two circles of radius 8.2cm and 3.6cm touch each other externally, the distance between their centres is  
 a) 1.8cm                      b) 4.1cm                      c) 4.6cm                      d) 11.8cm
- In the given diagram  $\theta$  is \_\_\_\_\_.  
 a)  $50^\circ$                       b)  $30^\circ$                       c)  $45^\circ$                       d)  $60^\circ$



- The areas of two similar triangles are  $16\text{cm}^2$  and  $36\text{cm}^2$  respectively. If the altitude of the first triangle is 3cm, then the corresponding altitude of the other triangle is \_\_\_\_\_.  
 a) 6.5cm                      b) 6cm                      c) 4cm                      d) 4.5cm

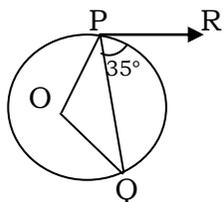
II. Answer any five of the following: 5x2=10

- State Menelaus Theorem.
- Say True or False:
  - Can we draw two tangents parallel to each other on a circle?
  - Can we draw two tangents perpendicular to each other on a circle?
- Find the value of 'a' if the points (2,3), (4,a) and (6,-3) are collinear.
- The line 'P' passes through the points (3,-2) (12,4) and the line Q passes through the points (6,-2) and (12,2). Is P parallel to Q?
- Find the intercept made by the line  $3x - 2y - 6 = 0$

16. Find the slope of the line which is perpendicular to  $2x-3y+8=0$
17. A straight line passes through  $(1,2)$  and has the equation  $y-2x-k=0$ . Find K.
18. Find the equation of the line having slope 3 and y-intercept 4.
- II. Answer any four of the following:  $4x+4=16+1$
19. Find the equation of a line passing through the point of intersection of lines  $4x+7y-3=0$  and  $2x-3y+1=0$  that has equal intercepts on the axes.
20. Find the equation of the line passing through  $(6,-2)$  and perpendicular to the line joining the points  $(6,7)$  and  $(2,-3)$ .
21. Show that in a triangle, the medians are concurrent.
22. If the points  $A(-3,9)$ ,  $B(a,b)$  and  $(4,5)$  are collinear and if  $a+b=1$  then find 'a' and 'b'.
23. A quadrilateral has vertices at  $A(-4,-2)$ ,  $B(5,-1)$ ,  $C(6,5)$  and  $D(-7,6)$ . Show that the midpoints of its sides form a parallelogram.
24. State and prove alternate segment theorem. (5)
- IV. Answer the following:  $1 \times 8 = 8$
25. Take a point which is 11cm away from the centre of a circle of radius 4cm and draw the two tangents to the circle from that point.

I. Choose the correct answer:  $10x^{1/2}=5$

- Centroid is the \_\_\_\_\_ of the medians.
  - point of contact
  - point of concurrence
  - centre
  - point on triangle
- In the given figure if PR is tangent to the circle at P and O is the centre of the circle, then POQ is \_\_\_\_\_.

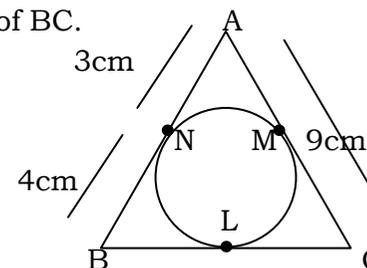


- $100^\circ$
  - $120^\circ$
  - $70^\circ$
  - $90^\circ$
- If  $b < 0$ , then the line  $y=b$  lies \_\_\_\_\_.
    - above the x-axis
    - below the x-axis
    - above the y-axis
    - below the y-axis
  - The straight line given by the equation  $x=11$  is
    - parallel to x-axis
    - parallel to y-axis
    - passing through the origin
    - passing through the point  $(0,11)$
  - In  $\Delta LMN$ ,  $\angle L=20^\circ$ ,  $\angle M=50^\circ$ . If  $\Delta LMN \sim PQR$  then the value of  $\angle R$  is
    - $40^\circ$
    - $70^\circ$
    - $30^\circ$
    - $110^\circ$
  - Two poles of heights 6m and 11m stand vertically on a plane ground. If the distance between their feet is 12m, what is the distance between their tops?
    - 13m
    - 14m
    - 15m
    - 12.8m
  - The slope of a vertical line is \_\_\_\_\_.
    - 0
    - 1
    - undefined
    - negative of x-axis
  - The slope of the line which is perpendicular to a line joining the points  $(0,0)$  and  $(-8,8)$  is
    - 1
    - 2
    - 1
    - $1/3$

- The equation of a line passing through the origin and perpendicular to the line  $7x-3y+4=0$  is
  - $7x-3y+4=0$
  - $3x-7y+4=0$
  - $3x+7y=0$
  - $7x-3y=0$
- A straight has equation  $8y=4x+21$ . Which of the following is true?
  - The slope is 0.5 and the y-intercept is 2.6
  - The slope is 5 and the y-intercept is 1.6
  - The slope is 0.5 and the y-intercept is 1.6
  - The slope is 5 and the y-intercept is 2.6

II. Answer any five of the following:  $5 \times 2 = 10$

- Find the slope of  $7x - \frac{3}{17} = 0$
- Find the equation of a line through the given pair of points  $(2,4)$  and  $(-1,3)$
- The line R passes through the points  $(-2,2)$  and  $(5,8)$  and the line S passes through the points  $(-8,7)$  and  $(-2,0)$ . Is the line 'R' perpendicular to 'S'?
- a) A chord is a subsection of \_\_\_\_\_.  
 b) No tangent can be drawn from an \_\_\_\_\_ of the circle.
- In the given figure  $\Delta ABC$  is circumscribing a circle. Find the length of BC.

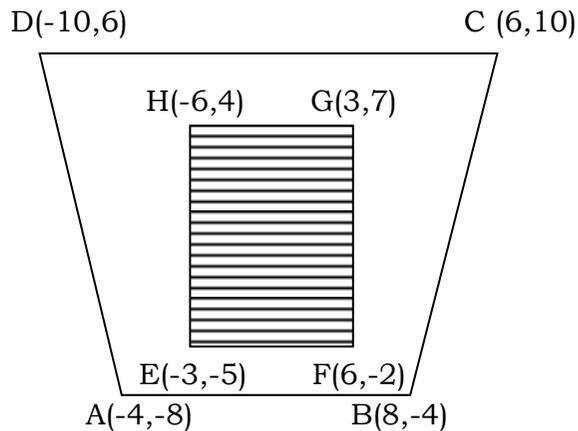


- Find the area of the triangle formed by the points  $(-5,0)$ ,  $(0,-5)$  and  $(5,0)$ .
- a) What is the inclination of a line whose slope is 1?  
 b) Two straight lines  $a_1x+b_1y+c_1=0$  and  $a_2x+b_2y+c_2=0$  where the coefficients are non-zero, are parallel if and only if \_\_\_\_\_.
- Find the equation of a straight line perpendicular to the line  $y = \frac{4}{3}x - 7$  and passing through the point  $(7,-1)$ .

III. Answer any four of the following: (Q.No.24 is compulsory)

$$4x^4=16+1$$

19. Find the equation of a straight line through the intersection of lines  $5x-6y=2$ ,  $3x+2y=10$  and perpendicular to the line  $4x-7y+13=0$
20. A line makes positive intercepts on coordinate axes whose sum is 7 and it passes through  $(-3,8)$ . Find its equation.
21. Show that the given points form a right angled triangle and check whether they satisfy Pythagoras theorem .  
 $L(0,5)$ ,  $M(9,12)$  and  $N(3,14)$
22. In the figure the quadrilateral swimming pool shown is surrounded by concrete patio. Find the area of the patio.



23. In  $\Delta ABC$ , with  $\angle B=90^\circ$ ,  $BC=6\text{cm}$  and  $AB=8\text{cm}$ , D is a point on AC such that  $AD=2\text{cm}$  and E is the midpoint of AB. Join D to E and extend it to meet at F. Find BF.
24. State and prove alternate segment theorem. (5)
- IV. Answer the following:  $1 \times 8 = 8$
25. Draw a tangent at any point R on the circle of radius 3.4cm and centre at P.

I. Choose the correct answer: 5x1=5

1. Who was the first director of Whampoa military academy\_\_\_\_.  
a) Sun - Yat - Sen                      b) Chiang-Kai-Shek  
c) Chou-En-Lai                          d) Michael Borodis
2. The most abundant source of energy is \_\_\_\_\_.  
a) Biomass                      b) Sun                      c) Coal                      d) Oil
3. One of shore based steel plants of India is located at \_\_\_\_\_.  
a) Kolkata                      b) Tuticorin  
c) Goa                          d) Vishakapatnam
4. Which of the following country is not the founder member of NAM?  
a) Yugoslavia                      b) Indonesia                      c) Egypt                      d) Pakistan
5. How many countries are having membership in WTO at present?  
a) 159                      b) 164                      c) 148                      d) 128

II. Fill in the blanks: 5x1=5

6. Perestroika refers to the programme introduced by \_\_\_\_\_.
7. The first paper mill of India was started in 1812 at \_\_\_\_\_ in West Bengal.
8. India conducted its first nuclear test as \_\_\_\_\_.
9. The Dutch captured Pondicherry in \_\_\_\_\_.
10. French East India company established second factory at \_\_\_\_\_.

III. Match the following: 5x1=5

- |                       |                               |
|-----------------------|-------------------------------|
| 11. a) Dr.Sun-Yat-Sen | - Enforce International Trade |
| b) Bauxite            | - 1954                        |
| c) Detroit of India   | - Chennai                     |
| d) WTO                | - Aircraft                    |
| e) Panchsheel         | - Kuomintang                  |
|                       | - 1955                        |

IV. Answer any two of the captions: 2x2=4

12. COLD WAR:

- a) Name the two military blocks that emerged in the post World War-II.

- b) Who coined the term “Cold War” and who used it first?
- c) What was the response of Soviet Russia to the formation of NATO?
- d) What was the context in which Warsaw pact was dissolved?

13. Kuomintang:

- a) Who is the leader of Kuomintang?
- b) Which place he conquered by the end of 1925?
- c) When did he sieged Shanghai and Nanking?
- d) Which government have formed in China?

IV. Distinguish between for any one of the following: 1x2=2

14. Renewable and non renewable resources.
15. Thermal power and nuclear power.

V. Answer any four of the following in brief: 4x1½=6

16. How was the Cuban missile crisis diffused?
17. What is Arab nationalism?
18. State the uses of Magnesium?
19. What is Byssinosis?
20. What is foreign policy?
21. List any four guiding principles of Panchsheel.
22. What is fair trade?
23. What are the main objectives of WTO?

VI. Answer any two of the following: 2x4=8

24. Explain how in 1928 Kuomintang and Chiang-Kai Shek established Central Government in China?
25. What are the non-conventional energy resources? Explain it.

26. What is MNC and explain the reasons for the growth of MNC?

VII. Mark the following places in India outline: 5x1=5

27. i) One Iron ore production centre.  
ii) One coal mining centre.  
iii) National Highway NH-7  
iv) One nuclear gas  
v) Ghataprabha River valley project.

I. Choose the correct answer: 5x1=5

- Dental formula of rabbit is \_\_\_\_\_.  
a)  $\frac{2033}{1023}$  b)  $\frac{1023}{2033}$  c)  $\frac{2023}{1033}$  d)  $\frac{1033}{2023}$
- Mammals are \_\_\_\_\_.  
a) Warm-blooded b) Homeotherm  
c) Both of these d) None of these
- \_\_\_\_\_ contains carpels.  
a) Sepals b) Petals c) Stamens d) Pistil
- Fertilization results in the formation of \_\_\_\_\_.  
a) conidia b) zygote c) zoo spores d) Aplanospores
- The miracle rice which saved millions of lives and celebrated its 50<sup>th</sup> birthday is \_\_\_\_\_.  
a) IR8 b) IR24 c) Atomita d) Ponni

II. Answer any four of the following: 4x2=8

- What is corpus callosum?
- What is the first event involved in the sexual reproduction of a flowering plant? Mention its types.
- Differentiate between Binary fission from Multiple fission.
- Draw a neat labelled diagram of pollen grain.
- Define genetic engineering.
- Differentiate between somatic and germline gene therapy.

III. Answer any five in brief: 5x4=20

- How does locomotion take place in Leech?
- Explain the structure of pollen grain with a neat labelled diagram.
- Explain the structure of Human sperm with a labeled diagram.
- What are the phases of menstrual cycle? Indicate the changes in the ovary and uterus.
- What are the effects of hybrid vigour in animals.
- Write a note on Mass selection.
- Write a note on urinary tract infection.

IV. Answer any one of the following in detail: 1x7=7

- What is pollination? Mention its types. List out the advantages and disadvantages of both the types.
- Explain Biotechnology in medicine.

Everwin Matric. Hr. Sec. School

26.11.19 ]FN Comprehensive Revision Programme-2 Marks:40

Std:X [A-E] ENGLISH-PART-II Time:1.15hrs.

PART-I

I. Choose the appropriate synonym for the underlined word: 2x½=1

- I gripped his arm.  
a. Cut b. Grieved c. Grasped d. damaged
- 'Nothing', he said gruffly.  
a. sadly b. grievously c. angrily d. carefully

II. Choose the appropriate antonym for the underlined word: 2x½=1

- The Prussians defeated the French.  
a. aimed b. brought c. triumphed d. drained
- Lessons were repeated in unison.  
a. accord b. discord c. united d. ignited
- Choose the correct plural form of 'radius' from the following: (½)  
a. radii b. radiuses c. raduiss d. radiises
- Choose the appropriate preposition to complete the sentence.(½)  
She was afraid \_\_\_\_\_ informing the police.  
a. On b. for c. of
- Choose the correct prepositional phrase from the given options. (1)  
Everything falls to the ground \_\_\_\_ Earth's gravitational pull.  
a. in addition to b. because of c. cause of

PART-II

II. Answer any four of the following: 4x1½=6

- Who was the narrator's neighbour?
- What did the Bodwells think when they heard the mother shout?
- What was Franz asked to tell? Was he able to answer?
- Why did Mr.Hamel say, it was the last French lesson?
- Why did Mr. Hamel blame himself?

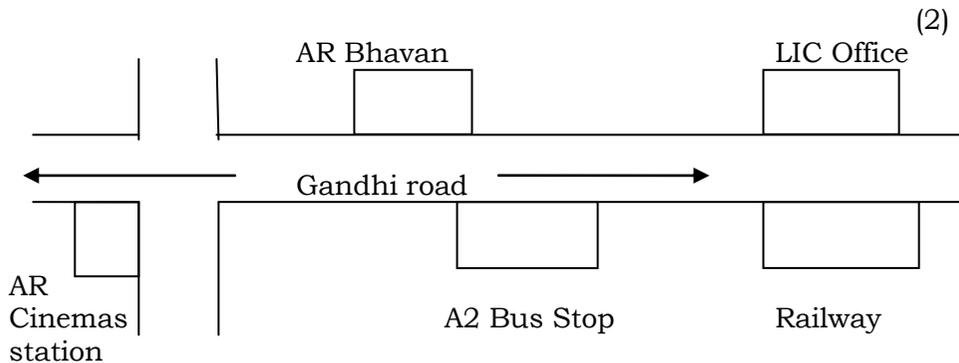
III. Answer the following: (10)

- Join the sentences using 'Relative Pronoun'. 1x2=2  
Bring me the file. The file is on the table.
- Spot the errors and rectify it: 4x1=4  
a. Sheela/ is/ a artist.  
b. An Earth /goes/round/the Sun.  
c. Physics/are/my favourite subject.  
d. Two and two /makes/four.

15. Rewrite into reported speech. 1x2=2

The blind lady said to the student, "Please, help me to cross the road."

16. Guide Ravi to the LIC office; Write the steps to guide him to reach his destination.



\* You are here

PART-III

IV. Answer the following: 4x4=16

17. a. Give an account of the last day of M. Hamel in school.

or

b. Write a paragraph on "The Grumble family" and their attitude towards other folks.

18. a. Write five lines from the poem

"No men and Foreign"

From: Remember, no men-----

To: ----- and water,

or

b. Prepare a speech on the topic "Education gives one power".

19. a. Paraphrase the given poetic lines.

"They growl at that and they growl at this;

Whatever comes, there is something amiss;

And whether their station be high or humble,

They are all known by the name of Grumble".

or

b. You are Deepak/Neetu. Write an e-mail to your class teacher expressing your interest to take part in the forthcoming Science Exhibition.

20. You are the co-ordinator of the Science Forum of your school. An event had been organized on account of National Science Day for the members of the forum. Write a report on the observation of "National Science Day" at your School.

PART-IV

21. Write a meaningful paragraph by developing the following hints: (4)

Krishnan- clinic-Somu-Alaska-Maya-Arvind-Zigzag-Mrs.  
Krishnan-Marina at sunset-Zigzag at the clinic- Krishnan, toffee-  
own way of showing- genius.