



G T S E

GOAL TALENT SEARCH EXAM

FIRST STEP TOWARDS COMPETITION

2026-27

CLASS : X - SAMPLE PAPER

- This paper has 30 questions. All questions are compulsory.
- The maximum marks for each question is 4.
- 1 mark will be deducted against each negative response from the total marks.
- Use of calculator, slide rule, graph paper & trigonometric tables is NOT PERMITTED.

[Time : 40 Minutes]

[Full Marks : 120]

Name of the Candidate : _____

Class : _____

Roll No. : _____

Exam Centre : _____

CLASS X SYLLABUS

Subject		Pre.	Mains
Physics	:	05	20
Chemistry	:	05	20
Biology	:	05	20
Maths	:	10	20
I.Q. Based	:	05	20
Total Questions	:	30	100
Total Time	:	40 Min.	2 Hrs.

Physics

Light Reflection and Refraction, Electricity & Magnetic Effect Of Electric Current, The Human Eye and The Colourful World. Describing motion around us, How forces effect motion, work, energy and simple machines, sound wave : Characteristics & Applications. Earth as a system : Energy, Matter and life.

Chemistry

Chemical Reactions and Equation, Acids, Bases and Salts, Carbon and its Compounds, Metal and Non-Metal, Exploring mixture and their separation, Journey inside the atom, Atomic foundation of matter.

Biology

Life Processes, Control & Coordination, How Do Organisms Reproduce, Heredity, Cell : The building block of life, Tissues in action, Reproduction : How life continues, Patterns in life : Diversity & classification.

Maths

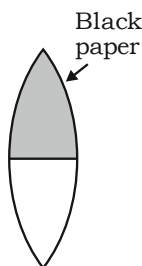
Number system, Polynomials, Pair of Linear Equations in Two Variables, Quadratic Equations, Arithmetic Progressions, Triangles, Coordinate Geometry, Introduction to Trigonometry, Some Applications of Trigonometry, Circles, Surface Areas and Volumes, Statistics, Lines and Angles, Quadrilaterals & Probability.

SCIENCE

01. When an object is placed between the focus and the pole of a concave mirror, the image formed is :

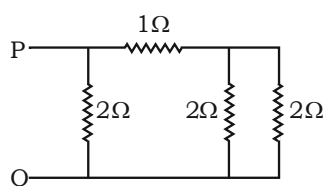
(1) real, inverted and small
 (2) real, inverted and same size
 (3) real, inverted and enlarged
 (4) virtual, erect and enlarged

02. How will the image formed by a convex lens be affected if the upper half of the lens is wrapped with a black paper ?



(1) the size of the image is reduced to one-half.
 (2) the upper half of the image will be absent.
 (3) the brightness of the image is reduced.
 (4) there will be no effect.

03. The equivalent resistance between P and Q will be :



(1) $7\ \Omega$ (2) $2\ \Omega$ (3) $\frac{5}{3}\ \Omega$ (4) $1\ \Omega$

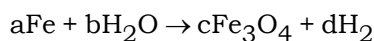
04. Magnetic lines of force :

(1) can form closed loops
 (2) cannot intersect
 (3) are crowded together near the poles
 (4) all the above are correct

05. A body of mass 5 kg undergoes a change in speed from 30 m/s to 40 m/s. Its momentum would increase by :

(1) 50 kg m/s (2) 75 kg m/s
 (3) 150 kg m/s (4) 350 kg m/s

06. After balancing the chemical equation choose correct matching



a	b	c	d
(1) 2	3	1	2
(2) 3	4	4	1
(3) 4	2	4	3
(4) 3	4	1	4

07. Allotropes of carbon is :

(1) Diamond
 (2) Graphite
 (3) Buckminster fullerene
 (4) All of these

08. During indigestion pH value of stomach decreases due to production of excess

(1) HCl (2) CH_3COOH
 (3) NaOH (4) All of these

09. Correct statement for colloidal solution is :

(1) A colloid is a heterogenous solution.
 (2) Colloids are big enough to scatter a beam of light passing through it and makes the path visible
 (3) Colloid is a stable if undisturbed
 (4) All of these

10. Most violent reaction with cold water and the metal among following

(1) Fe (2) K (3) Cu (4) Mg

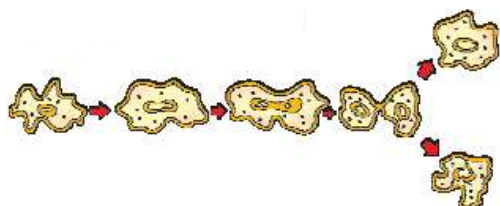
11. The process of breakdown of glucose, a six-carbon molecule into a three-carbon molecule pyruvate takes place in the_____.

(1) Mitochondria (2) Cytoplasm
(3) Nucleus (4) Both (1) and (2)

12. Which of the following parts do not belong to the hindbrain of the human brain ?

(1) Pons (2) Medulla
(3) Cerebrum (4) Cerebellum

13. The given figure is depicting which mode of reproduction and in which organism.



(1) Binary fission in Amoeba
(2) Binary fission in Leishmania
(3) Multiple fission in Plasmodium
(4) Regeneration in Planaria

14. When Mendel crossed a tall plant and a short plant, the plants obtained in F_1 generation were:

(1) 100% tall plants (2) 50% tall plants
(3) No tall plants (4) 25% tall plants

15. What is functions of valves in human heart ?

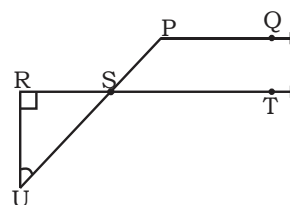
(1) To carry oxygen rich blood to different parts of the body.
(2) To collect the blood from different organs and bring it back to the heart.
(3) To ensure that the blood does not flow backwards when the atria or ventricles contract.
(4) Exchange of material between blood and surrounding cell.

MATHS

16. If $t_n = (3 + 4n)$ of an A.P. then the sum of the its 15 term is :

(1) 525 (2) 600
(3) 475 (4) None of these

17. In the given figure (not drawn to scale), if $PQ \parallel ST$ and $\angle RUS = 37^\circ$, then find measure of $\angle SPQ$.



(1) 147° (2) 123°
(3) 127° (4) None of these

18. A bag contains 14 balls of which x are white. If 6 more white balls are added to the bag, the probability of drawing a white ball is $1/2$. Find the value of x .

(1) 3 (2) 6
(3) 4 (4) none of these

19. The sum of two numbers is 20 and their product is 40. The sum of their reciprocals is

(1) $\frac{1}{10}$ (2) $1/2$ (3) 2 (4) 4

20. A pole 6 m high casts a shadow $2\sqrt{3}$ m long on the ground, then the sun's elevation is—

(1) 60° (2) 45° (3) 30° (4) 90°

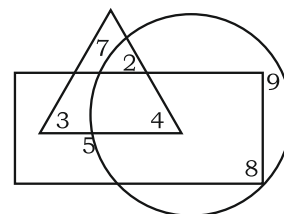
21. The mean of the following frequency distribution is 62. Find the missing frequency x .

Class	0 – 20	20 – 40	40 – 60	60 – 80	80 – 100	100 – 120
Frequency	5	8	x	12	7	8

- (1) 13.33 (2) 14.67
(3) 15.58 (4) None of these
22. If each observation is multiplied by $\frac{1}{3}$ then the mean of the new data will be :
- (1) $\frac{1}{3}$ times (2) 3 times
(3) $\frac{1}{\sqrt{3}}$ times (4) $\frac{2}{3}$ times
23. When two dice are thrown, the probability of getting a number always greater than 4 on the second dice is _____ .
- (1) $\frac{1}{6}$ (2) $\frac{1}{3}$
(3) $\frac{1}{36}$ (4) $\frac{5}{36}$
24. The roots of the quadratic equation $\frac{x^2 - 8}{x^2 + 20} = \frac{1}{2}$ are :
- (1) ± 3 (2) ± 2
(3) ± 6 (4) ± 4
25. The sum of square of two consecutive even number added by 4 is always divisible by _____.
- (1) 24 (2) 16
(3) 8 (4) 32

I.Q BASED

26. 'Cardiology' is related to 'Heart' in the same way as 'Pathology' related to '_____'.
(1) Soil (2) Man
(3) Diseases (4) Body
27. In a code language, PICTURE is written as 16932021185. How will FUNCTION be written in that language ?
(1) 6211432091514 (2) 6221532191415
(3) 6211432091614 (4) 6211432081514
28. Study the given pattern carefully and select the number that will replace the question mark (?) in it ?
- | | | |
|----|----|----|
| 7 | 13 | 6 |
| 4 | 22 | 18 |
| 15 | ? | 7 |
- (1) 23 (2) 24 (3) 22 (4) 21
29. In the given Venn Diagram, triangle represents healthy people, rectangle represents old persons and circle represents females. Which of the following number represents healthy females who are old ?



- (1) 4 (2) 5 (3) 7 (4) 2
30. How many triangle are there in the following figure ?



- (1) 14 (2) 12 (3) 10 (4) 8

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