

IMPORTANT INSTRUCTIONS

GENERAL INSTRUCTIONS

1. This booklet is your Question Paper.
2. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form are not allowed to be used.
3. Write your **Name** in the space provided in the first page of this booklet.
4. No rough sheets will be provided by the invigilators. All the rough work is to be done in the blank space provided in the question paper.
5. No query related to question paper of any type is to be put to the invigilator.

INSTRUCTIONS FOR OPTICAL RESPONSE SHEET (ORS)

- Darken the appropriate bubbles on the original by applying sufficient pressure.
- The original is machine-gradable and will be collected by the invigilator at the end of the examination.
- Do not tamper with or mutilate the ORS.
- Before answering the paper, fill up the required details in the blank space provided in the Objective Response Sheet (ORS).
- Do not forget to mention your paper code and **Application Form Number** neatly and clearly in the blank space provided in the Objective Response Sheet (ORS) / Answer Sheet.
- Use a **BLACK BALL POINT** to darken the bubbles in the upper sheet.
- Darken the bubble **COMPLETELY**.
- Darken the bubble **ONLY** if you are sure of the answer.
- The correct way of darkening a bubble is as shown here :
- There is **NO** way to erase or "un-darkened bubble.
- The marking scheme given at the beginning of each section gives details of how darkened and **not darkened** bubbles are evaluated.

Marks distribution of questions is as follows.

V-SAT 2025						
S.No.	Subject	Nature of Questions	Marks to be awarded			
			No. of Questions	Correct	Wrong	Total
1 to 15	PART-I (Mental Ability)	Single Choice Questions (SCQ)	15	4	0	60
16 to 30	PART-II (Maths)	Single Choice Questions (SCQ)	15	4	0	60
31 to 35	PART-III (Physics)	Single Choice Questions (SCQ)	05	4	0	20
36 to 40	PART-V (Chemistry)	Single Choice Questions (SCQ)	05	4	0	20
41 to 45	PART-IV (Biology)	Single Choice Questions (SCQ)	05	4	0	20
Total			45			180

Zero marks '0' If none of the options is chosen (i.e. the question is unanswered).

MENTAL ABILITY

This section contains 15 Multiple Choice Questions. Each question has four choices (a) (b) (c) and (d) out of which ONLY ONE is correct.

1. Which of the following words will come at second position if all the words are arranged alphabetically?

(A) Boast (B) Broad (C) Board (D) Bull

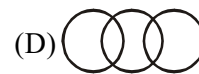
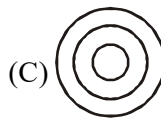
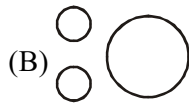
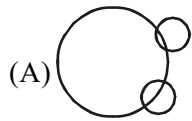
2. Following question are based on the following letters of English alphabet. Study the pattern and then answer these questions.

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

If second half of the above alphabets is written in reverse order, which letter would be 5th from right of 9th letter from left?

(A) Z (B) M (C) N (D) P

3. Below you are served with four different type of Venn diagrams that indicate a definite relationship between Tennis, Rugby and Soccer. You need to find out the diagram which is the most relevant



4. In a certain code, “APPROVAL” is written as “LAVORPPA”. How would “ROUTINE” be written in that code?

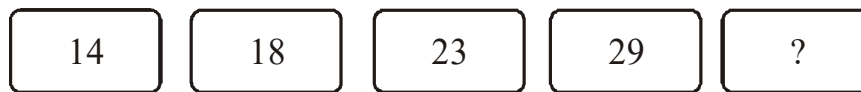
(A) ENITUOR (B) ROUENIT (C) UORENIT (D) ENITOUR

5. If in the English alphabet, every alternate letter from B onwards is written in small letters while others are written in capitals, then how will the 3rd day from Tuesday will be coded?

(A) WeDNeSdAY (B) WEdnESdAY
(C) THURSdAY (D) frIdAY

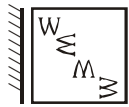
SPACE FOR ROUGH WORK

6. If 'Mountain' is called 'Star', 'Star' is called 'Flower', 'Flower' is called 'Paper' and 'Paper' is called 'Pen', then on which Honey bee sits to prepare honey?
- (A) Flowers (B) Star
(C) Paper (D) Pen
7. In a certain code, RAIN is written as “ * % ÷ # ”, INK is written as “ ÷ # \$ ”. How is “ R A N K “ written in that code?
- (A) * % # (B) ÷ # \$ *
(C) # # * (D) * % # \$
8. Find the missing number in the given series.

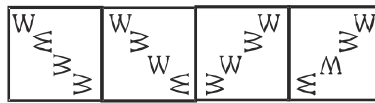


- (A) 33 (B) 34 (C) 36 (D) 37
9. Which answer figure will be the correct mirror image the question figure ?

Question figure



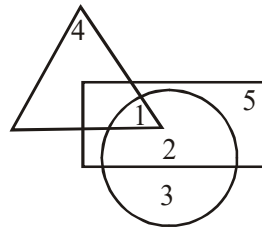
Answer figure



(A) (B) (C) (D)

SPACE FOR ROUGH WORK

10. In the given figure the circle represents children who like Burger, the triangle represents children who like Pizza, rectangle represents children who like Sandwich



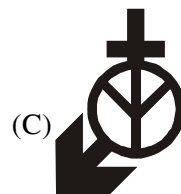
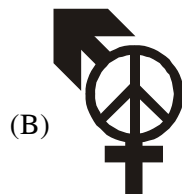
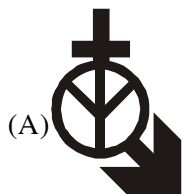
Which region represents children who like burger and sandwich both but not pizza ?

- (A) 1 (B) 2
(C) 3 (D) 6
11. In the following question, choose the correct water-image of the given word from amongst the four alternative (A), (B), (C) and (D) given along with it.

DISC

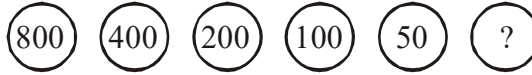
- (A) CSID (B) ɹSIɹ
(C) DI2C (D) DISC

12. Find the water image of following figure.



SPACE FOR ROUGH WORK

13. Which one comes next?



(A) 15

(B) 20

(C) 25

(D) 30

14. If in a certain code TRACTOR is coded as ARTCROT. How is SCOOTER written in that code?

(A) RTEAOTO

(B) CSOOETR

(C) OCSTORE

(D) OCSORET

15. Find the missing term : 2, 5, 11, 23, 47, ?

(A) 53

(B) 95

(C) 84

(D) 66

SPACE FOR ROUGH WORK

MATHEMATICS

This section contains 15 Multiple Choice Questions. Each question has four choices (A) (B) (C) and (D) out of which ONLY ONE is correct.

16. In the following pictograph, number of video games sold in week has been shown.

(Scale  = 7 video games)

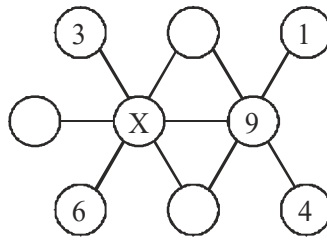
Monday	   
Tuesday	     
Wednesday	 
Thursday	       
Friday	    
Saturday	      

How many video games were sold during first four days of the week?

- (A) 120 (B) 140 (C) 160 (D) 180
17. A plastic pipe 50 metres long weighs 4 kilograms. What is the weight of a similar pipe that is 20 metres long?
- (A) 1.5 kg (B) 1.6 kg (C) 1.8 kg (D) 2.2 kg

SPACE FOR ROUGH WORK

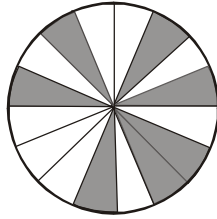
18. In the diagram, each of the integer 1 to 9 is to be placed in one circle so that the integers in every straight row of three joined circles add to 18. Find the value of the number represented by X.



- (A) 4 (B) 5 (C) 7 (D) 8
19. If  represents 60 men, then how many men does  represent?
- (A) 40 (B) 50 (C) 12 (D) 70
20. Saurabh has organised his birthday party and invited his friends. If he is planning to give 150 gm of cake and 350 ml of cold-drink to each guest. How much quantity of cake and cold-drink he need for 50 guest?
- (A) 7.5 kg cake and 17.5 litres cold-drink
 (B) 5 kg cake and 22.5 litres cold-drink
 (C) 8 kg cake and 12.5 litres cold-drink
 (D) 12 kg cake and 17.5 litres cold-drink
21. If  +  = 15 and  > 7 but  < 9, then find the value of  if both symbols stand for whole numbers.
- (A) 9 (B) 7 (C) 11 (D) 16

SPACE FOR ROUGH WORK

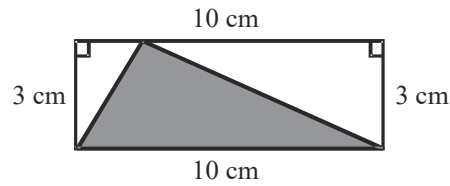
22. An auditorium had 240 rows of chairs. If there are 170 chairs in each row, how many persons can be seated in the auditorium?
- (A) 40800 (B) 408 (C) 41000 (D) 410
23. Ram mixed 3.6 kg of hazelnuts with 0.75 kg of cashews. He packed the mixture equally into 5 boxes. What is the mass of each box ?
- (A) 14.25 kg (B) 4.35 kg (C) 0.87 kg (D) 0.72 kg
24. What part of total area is shaded.



- (A) $\frac{4}{15}$ (B) $\frac{8}{32}$ (C) $\frac{7}{16}$ (D) $\frac{10}{32}$
25. $12 + \frac{2}{10} + \frac{4}{1000} =$
- (A) 12.204 (B) 12.240 (C) 12.402 (D) 12.240
26. $3 \times (3 + 3) \div 3$ equals
- (A) 6 (B) 3 (C) 2 (D) 12

SPACE FOR ROUGH WORK

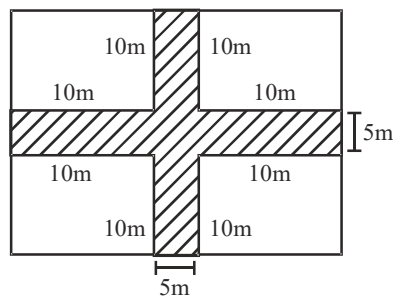
27. In the diagram, what is the area of the shaded triangle?



- (A) 6.5 cm^2 (B) 7.5 cm^2
 (C) 15 cm^2 (D) 13 cm^2
28. Simplify : $3\frac{1}{2} + \frac{15}{4} - 2\frac{3}{4} - 1\frac{5}{8}$

- (A) $8\frac{1}{6}$ (B) $6\frac{1}{8}$
 (C) $\frac{50}{8}$ (D) $\frac{31}{6}$

29. Find the area of shaded region in given figure.



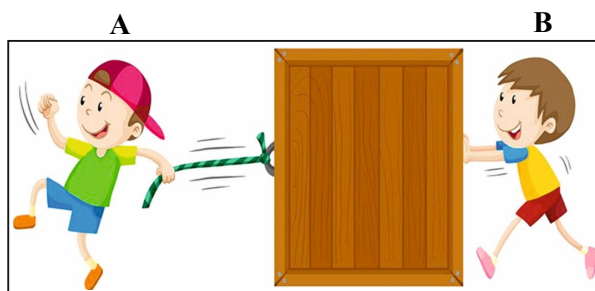
- (A) 225 m^2 (B) 150 m^2 (C) 180 m^2 (D) 200 m^2
30. Subtract 9 km 75 m from 16 km 20 m.
- (A) 6 km (B) 6.945 km (C) 5.965 km (D) 6.941 km

SPACE FOR ROUGH WORK

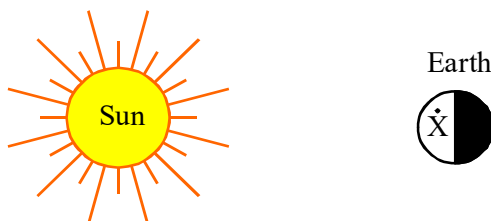
PHYSICS

This section contains 05 Multiple Choice Questions. Each question has four choices (a) (b) (c) and (d) out of which ONLY ONE is correct.

31. A non luminous body may behave as a luminous body when
 (A) it is cooled (B) it is melted
 (C) it is heated (D) it is evaporated
32. Forces exerted by boy A and boy B are the examples of (a) _____ and (b) _____ respectively.



- (A) pull, pull (B) push, push (C) pull, push (D) push, pull
33. The diagram below shows the Sun and the Earth. Letter X shows a location on the Earth's surface.



After 12 hours it will be

- (A) day at location X.
 (B) night at location X.
 (C) summer at location X.
 (D) winter at location X.
34. Pinhole camera is used to produce image of a large tree. It produces
 (A) an erect and small image an
 (B) erect and same size image an
 (C) inverted and small image
 (D) an erect and enlarged image
35. The distance between Bengaluru and Mysore is usually expressed in units of:
 (A) Decametre (B) Metre
 (C) Centimetre (D) Kilometre

CHEMISTRY

This section contains 05 Multiple Choice Questions. Each question has four choices (a) (b) (c) and (d) out of which ONLY ONE is correct.

36. Nitesh scratched four different materials P, Q, R and S with a piece of glass. He observed that he could make a scratch only on two materials Q and S. What is the reason behind this observation?
- (A) Because glass is a transparent material.
 (B) Because glass is a softer material than Q and S.
 (C) Because glass is a harder material than P and R.
 (D) Because glass is a harder material than Q and S.

37. Which process is used for separating salt from sea water ?
- (A) Filtration (B) Evaporation (C) Sedimentation (D) Decantation

38. The diagram below shows the effect of a river on an area over many years.



Which process caused valley to form?

- (A) Condensation (B) Deposition
 (C) Erosion (D) Evaporation
39. Arrange the following in increasing order of the thickness of Yarn, Fibre, Thread
- (A) Yarn < Fibre < Thread (B) Fibre < Thread < Yarn
 (C) Fibre < Yarn < Thread (D) Fibre < Thread = Yarn.
40. _____ is the fertile component in soil.
- (A) Gravel (B) Humus (C) Moisture (D) Air

BIOLOGY

This section contains 05 Multiple Choice Questions. Each question has four choices (a) (b) (c) and (d) out of which ONLY ONE is correct.

41. Most producers obtain energy primarily from
 (A) water (B) sun
 (C) nutrients in the soil (D) decomposers

42. Complete the table by selecting correct option.

Vitamin	Function	Deficiency disease
A	Healthy skin and eyes	Night blindness
Vitamin D	Healthy bones	B
Vitamin K	C	Hemorrhage

- (A) A-Vitamin-B, B- Scurvy, C-Growth of bones
 (B) A-Vitamin-A, B- Beriberi, C-Keeps mouth and skin healthy
 (C) A-Vitamin-C, B- Rickets, C-Increase the Immune system
 (D) A-Vitamin-A, B- Rickets, C-Blood clotting process
43. I am the life line of a person's body. I am the king of circulatory system. I pump the blood throughout the body and if I stop working, the person will die. Who am I?
 (A) Heart (B) Brain
 (C) Kidney (D) Lungs
44. From which part of plant sugarcane can be grown ?
 (A) Stems (B) Roots (C) Leaves (D) Flowers
45. Which one is the correct food chain?
 (A) Eagle Snake Grasshopper Grass Frog
 (B) Frog Snake Eagle Grasshopper Grass
 (C) Grasshopper Grass Snake Frog Eagle
 (D) Grass Grasshopper Frog Snake Eagle