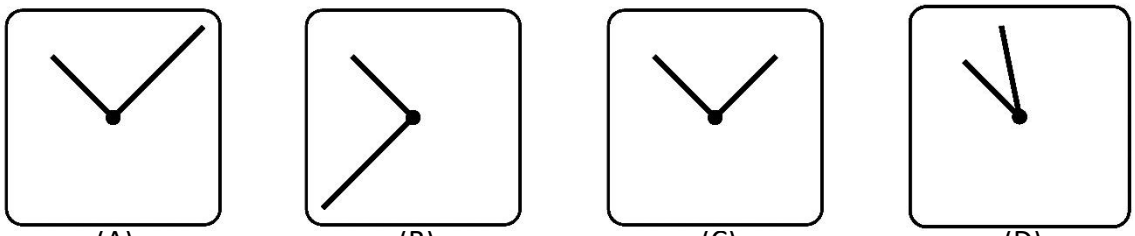
B.Des.
DAT Prelims
Sample Test Paper
2024

Question Numbers 01 to 13 consist of 01 Mark each

Q1) Which one of the wall clocks below has the most functional design?



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

Q2) How many wings does a dragonfly have?

(A) 8 (B) 6 (C) 4 (D) 2

Q3) Which of the following statements is correct?

(A) Glass is biodegradable
(B) Glass and plastic are not biodegradable
(C) Plastic is biodegradable
(D) Glass and plastic are biodegradable

Q4) Demography is the statistical study of which one of the following?

(A) Human Populations
(B) Human Settlements
(C) Human Societies
(D) Human Life

Q5) Night-time flowering plants are typically_____ in colour, but have a pleasing smell, as insects do not see at night time but get attracted to their smell. Identify the correct colour.

(A) Purple (B) Red (C) White (D) Yellow

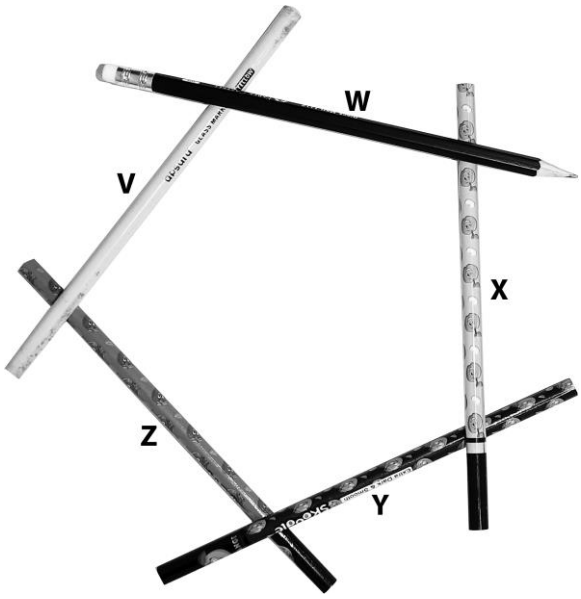
Q6) Which of the following relationships best describes the interactions in a typical food chain?

(A) Territorial
(B) Symbiotic
(C) Reproductive
(D) Predator-prey

Q7) Human eye understands lightness and darkness by using rods and distinguishes colors by use of cones. Which part of the eye helps control the amount of light entering it?

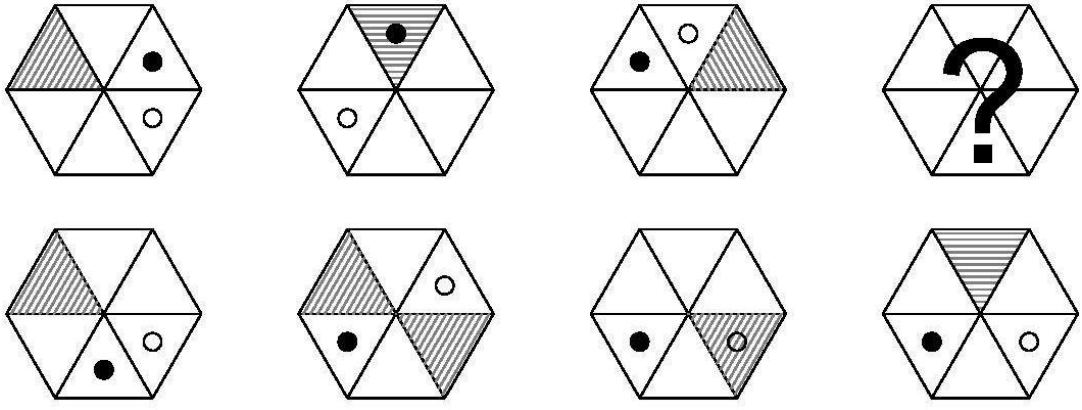
(A) Cornea (B) Pupil (C) Retina (D) Optic nerve

Q8) Five pencils (V, W, X, Y, Z) are arranged on the floor as shown in the image. Which of them are in the same plane?



(A) V and Z (B) V and Y (C) W and V (D) Z and W

Q9) Which of the options below replaces the question marks as the logical next hexagon in the sequence?



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

Q10) Which of the following heavenly bodies are of a similar nature?

(i) Sun (ii) Alpha Century (iii) Moon
(iv) Earth (v) Halley's Comet

(A) i and iii (B) i and ii (C) iii and v (D) i, iii and iv

Q11) "Yellow-Green /Yellow/ Yellow-Orange" show a distinct relationship. Which of the options below shows a similar relationship?

(A) Red-Orange/ Red/ Magenta

(B) Yellow-Green/ Violet/Yellow-Orange

(C) Blue/ Violet/ Magenta

(D) Green/ Red/ Magenta

Q12) You are positioned in Delhi. If you travel to Bhopal and then to Ahmedabad, what will be your direction of travel from Bhopal towards Ahmedabad?

(A) North (B) East (C) West (D) South

Q13) Can the cut wooden logs shown in the first sketch (Fig. 1) be fixed together without any changes to make the structure in the second image (Fig. 2)?

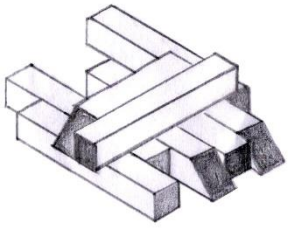


Fig. 1

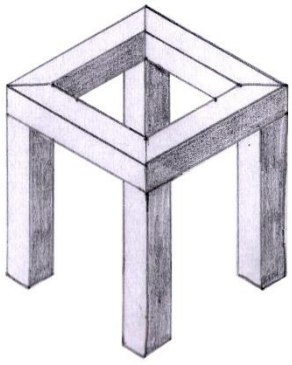


Fig. 2

(A) Yes (B) No (C) Maybe Yes (D) Maybe No

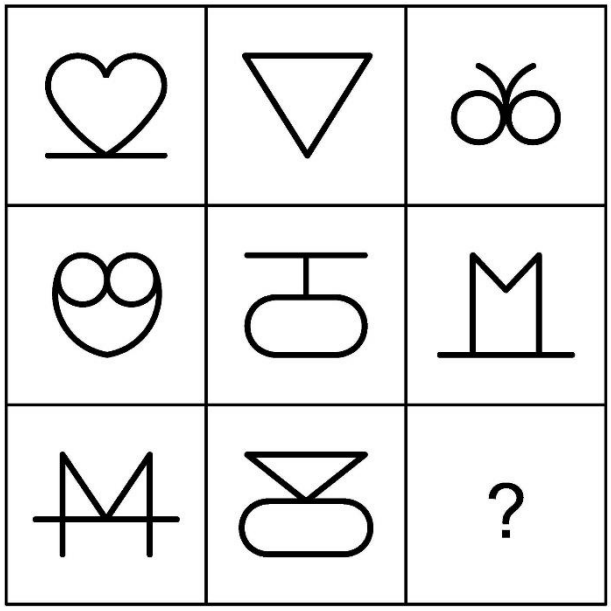
Question Numbers 14 to 19 consist of 02 Marks each

Q14) Find the correct number that replaces 'Question mark' (?) to complete this equation.



(A) 1 (B) 2 (C) 3 (D) 5

Q15) Identify the correct alternative which replaces the question mark in the square given below?





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

Q16) It takes longer to cook food at high altitudes (hills/mountains) than places at low altitudes (e.g., near seashores). People living at higher altitudes have more hemoglobin than people from low altitudes. Vehicles at Chennai need to be tuned when brought to Shimla. Which of the statements given below are correct?

1. The boiling point of water does not change at all locations.
2. Boiling of water depends on pressure.
3. Oxygen is low at high altitudes.
4. The air fuel mixture of any vehicle remains the same at all locations.

(A) 1 and 3 (B) 2 and 3 (C) 1 and 4 (D) 2 and 4

Q17) In the context of citizenship, which of the following best describes the relationship between rights and duties?

(A) Rights and duties are entirely unrelated and do not impact each other.
(B) Rights and duties are synonymous terms with the same meaning.
(C) Rights and duties are interrelated, as rights come with responsibilities and obligations.
(D) Rights are always more important than duties in any society.

Q18) In the context of a group or community, what do "homogeneity" and "diversity" refer to? Identify the suitable option.

(A) Homogeneity refers to a group's ability for change, while diversity signifies ability to confirm.
(B) Homogeneity indicates a group's similarity in terms of characteristics, while diversity represents variations in characteristics.
(C) Homogeneity and diversity are unrelated concepts in group dynamics.
(D) Homogeneity refers to a group's openness to new ideas, while diversity refers to resistance to change.

Q19) Match the crafts given in column A to the state/UT names in Column B and identify the correct option.

Column A	**Column B**
Dokra	Jammu & Kashmir
Papier Mache	Bihar
Madhubani painting	Chhattisgarh
Bidri work	Karnataka

(A) Dokra - Jammu & Kashmir, Papier Mache - Bihar, Madhubani painting - Chhattisgarh, Bidri work – Karnataka
(B) Papier Mache - Jammu & Kashmir, Madhubani painting - Bihar, Bidri work – Karnataka, Dokra – Chhattisgarh
(C) Madhubani painting - Karnataka, Bidri work – Chhattisgarh, Dokra - Bihar, Papier Mache - Jammu & Kashmir
(D) Bidri work - Jammu & Kashmir, Dokra - Karnataka, Papier Mache - Bihar, Madhubani painting - Chhattisgarh

Q20) A pattern has been cut out from a folded sheet of paper as shown below in Fig. 1, Fig. 2, and Fig. 3.

Draw the pattern, in Fig. 4, as seen on the unfolded sheet after cutting. Use dotted lines to indicate paper fold and shade the cut-out sections. **(15 Marks)**

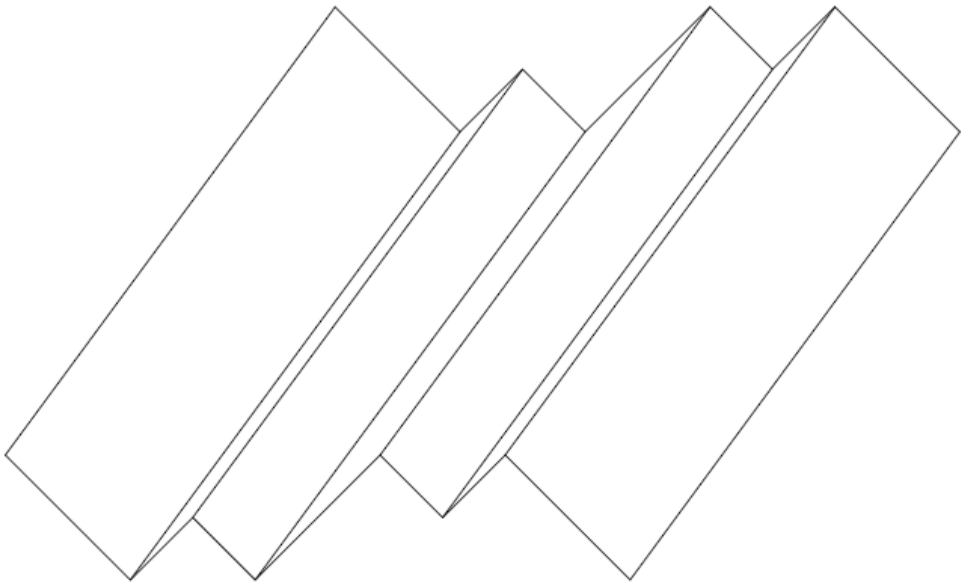


Fig. 1: Folded paper before cutting

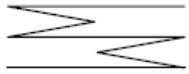


Fig. 2: Folded profile



Fig. 4: Draw the pattern here. Fold lines and dotted lines and shade the cut-out sections.

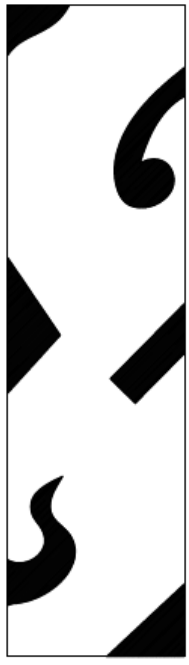


Fig. 3: Cut-out pattern

Q21) Potable water is a major challenge in mountain regions. Analyze this context and difficulties related to potable water. Design a water-carrying product that allows community members to transport 20 liters of water effectively. **(20 marks)**

21A) Draw in the space below, a detailed illustration of this product outlining its features and materials used. (12 marks)

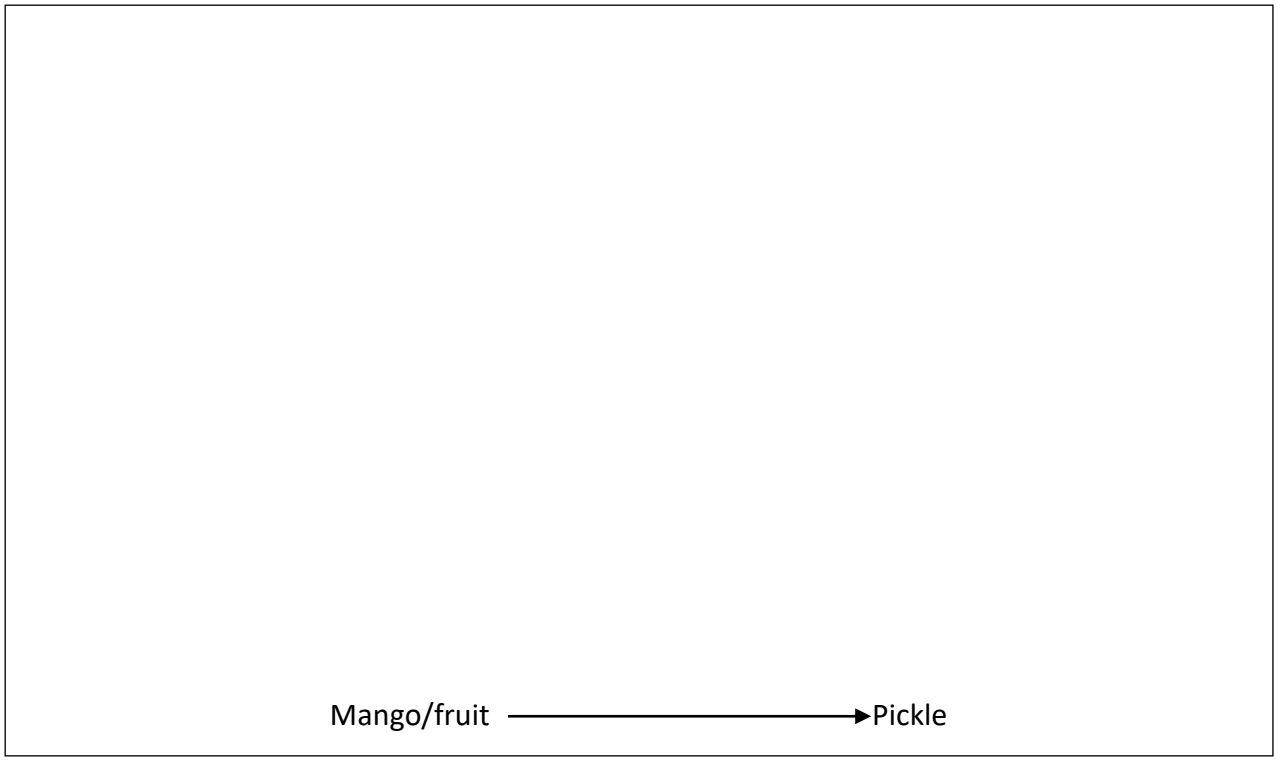
21B) Draw in the space below, how the product will be carried by individuals. (08 marks)

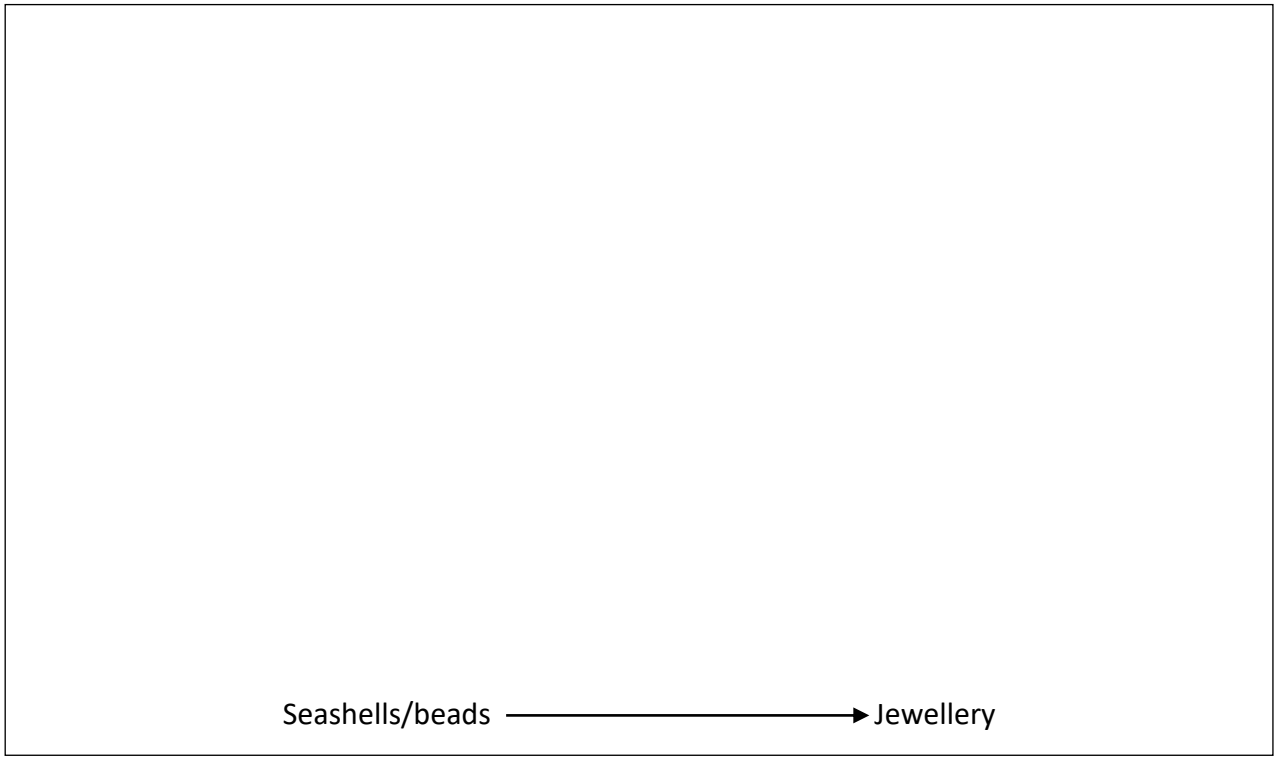
Q22) Given below are pairs of words inside the boxes that represent the original and final state of different things. **(5 x 4 = 20 marks)**

In the given space, diagram or sketch three crucial activities in the process that would have led the original thing to the final state of that thing.

Potato ⟶ Chips

Bees ⟶ Candle


Mango/fruit
Pickle

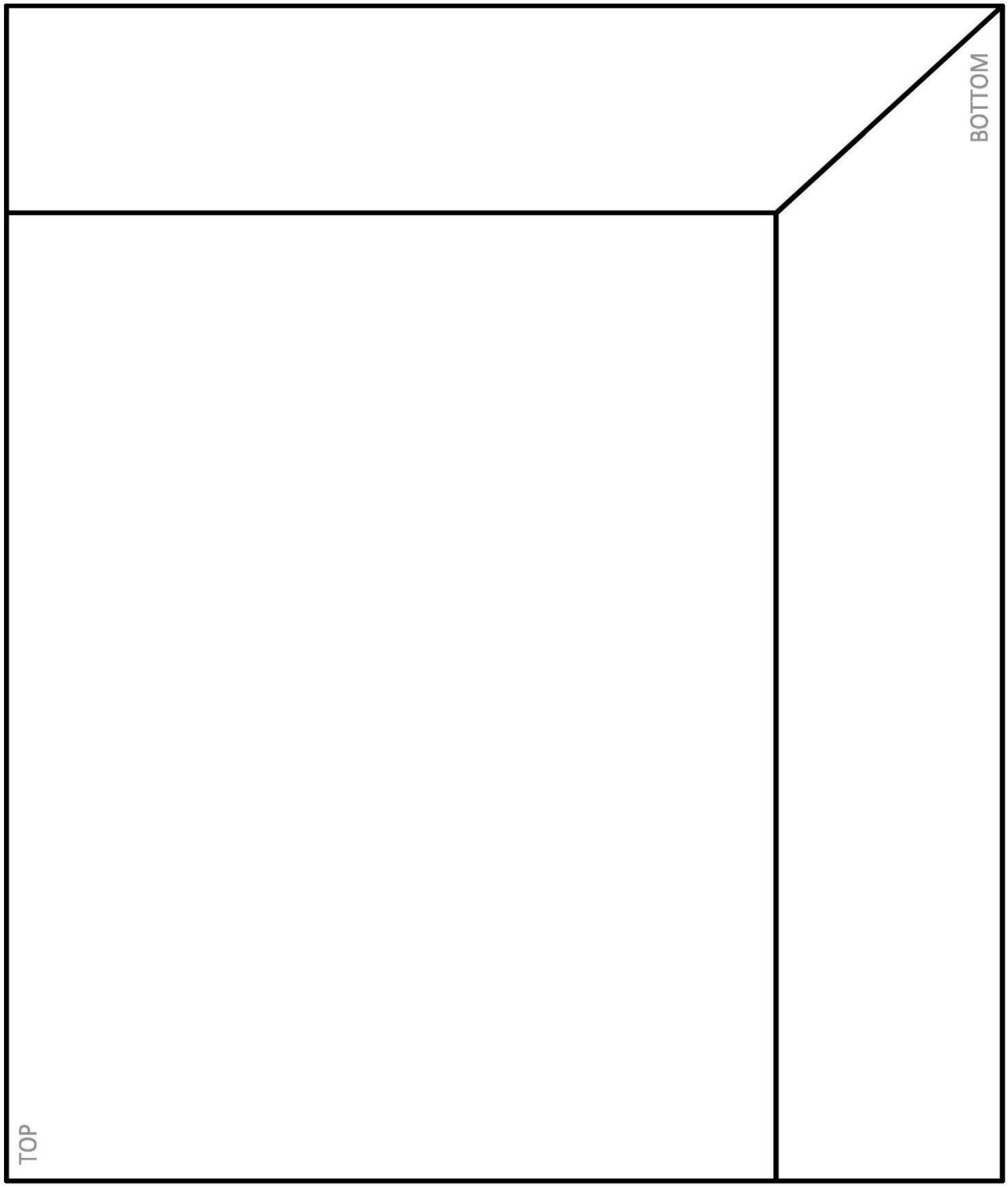

Seashells/beads
Jewellery

Q23) Recall a space from a house that is being used by either one of the two options given below. Tick the box to mark your selection. **(20 marks)**

☐ elderly person (above fifty years old) or

☐ a child (four to ten years old).

23A) Draw the space you have selected with relevant objects in the frame given below. Draw in the horizontal orientation in relation to the top and bottom of the space. (10 marks)



23B) Select any <u>one object</u> from your previous drawing and draw it below in detail. Write about one key function with reference to the person using this object. (05 marks)

_____

_____

23C) Write one suggestion to improve its functionality. Draw the improvised version in the space provided. (05 marks)

_____

_____