SRMJEEE English & Aptitude Sample Paper – 8

Duration: 24 Minutes **Maximum Marks: 20**

Instructions

- This paper contains **20** Multiple Choice Questions (Single Correct Answer), modelled on the English & Aptitude section of **SRMJEEE** (SRM Joint Engineering Entrance Examination).
- It has two parts: **Part A – English** (Questions 1–8: comprehension, grammar and vocabulary) and **Part B – Aptitude** (Questions 9–20: reasoning and quantitative aptitude). Attempt all questions.
- Each correct answer carries **+1 mark**. There is **no negative marking**; an unattempted or wrong answer scores 0.
- Only **one** option is correct. Choose carefully.
- Personal calculators, mobile phones, log tables and other electronic gadgets are strictly prohibited.

Part A: English

Directions (Q1–Q2): Read the following passage carefully and answer the questions that follow.

> *Coral reefs are among the most colourful living structures in the ocean. They are built slowly, over thousands of years, by tiny soft-bodied animals called coral polyps, which leave behind hard skeletons of limestone. Although reefs cover only a small fraction of the sea floor, they shelter about a quarter of all marine species. Today, however, rising ocean temperatures are bleaching and killing these fragile reefs.*

Q1. According to the passage, coral reefs are built by:

(A) tiny coral polyps

(B) large ocean fish

(C) rising ocean currents

(D) underwater volcanoes

Q2. The passage most strongly suggests that coral reefs are:

(A) harmful to marine life

(B) valuable and in need of protection

(C) growing larger every year

(D) unaffected by warmer oceans

Q3. Choose the word that is most nearly *similar* in meaning to the word **ENORMOUS**:

(A) tiny

(B) ordinary

(C) huge

(D) narrow

Q4. Choose the word that is most nearly *opposite* in meaning to the word **ACCEPT**:

(A) welcome

(B) receive

(C) approve

(D) reject

Q5. Identify the part of the sentence that contains a grammatical error:
"Neither of the two boys (A) / were (B) / present (C) / in class. (D)"

(A) part (A)

(B) part (B)

(C) part (C)

(D) part (D)

Q6. Fill in the blank with the correct word:
"She is fond ____ classical music."

(A) for

(B) with

(C) of

(D) in

Q7. Choose the word for the following: "The words inscribed on a tomb or gravestone."

(A) elegy

(B) obituary

(C) biography

(D) epitaph

Q8. The idiom "a white elephant" means:

(A) a costly but useless possession

(B) a rare and lucky charm

(C) a large white animal

(D) a sudden stroke of good fortune

Part B: Aptitude

Q9. Find the next number in the series: $1,\ 8,\ 27,\ 64,\ ?$

(A) 100

(B) 125

(C) 81

(D) 96

Q10. If each letter is replaced by its opposite letter in the alphabet (so that A $\leftrightarrow$ Z, B $\leftrightarrow$ Y, C $\leftrightarrow$ X, and so on), then "ACE" is coded as:

(A) ZYW

(B) YXW

(C) ZXV

(D) ZWU

Q11. Pointing to a man, a boy said, "He is the brother of my mother." How is the man related to the boy?

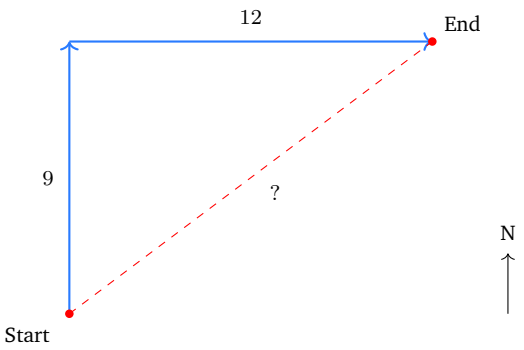
(A) paternal uncle

(B) father

(C) grandfather

(D) maternal uncle

Q12. A man starts from a point, walks 9 km towards the North, then turns right and walks 12 km towards the East, as shown. How far (straight-line distance) is he now from the starting point?



(A) 15 km

(B) 21 km

(C) 13 km

(D) 18 km

Q13. In a class of 40 students, a girl is 18th from the top in a merit list. What is her position from the bottom?

(A) 23rd

(B) 22nd

(C) 24th

(D) 18th

Q14. Choose the option that completes the analogy: **Fingers : Hand :: Petals : ?**

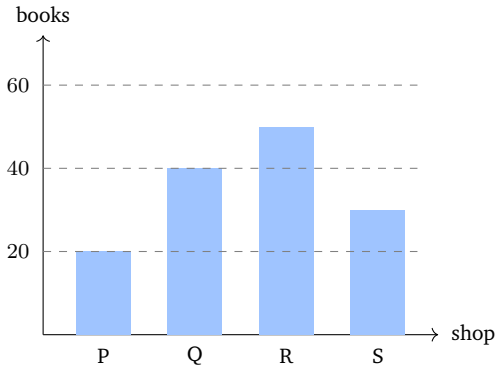
(A) leaf

(B) flower

(C) root

(D) stem

Q15. The bar chart shows the number of books sold in four shops. What is the *total* number of books sold in all four shops together?



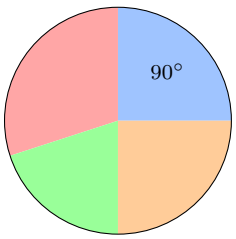
(A) 120

(B) 130

(C) 140

(D) 150

Q16. In the pie chart shown, the shaded sector measures exactly 90° at the centre. What *percentage* of the whole does this sector represent?



(A) 50%

(B) 30%

(C) 20%

(D) 25%

Q17. The value of 15% of 200 is:

(A) 30

(B) 20

(C) 25

(D) 15

Q18. An article is bought for Rs. 50 and sold for Rs. 60. The profit percentage is:

(A) 10%

(B) 20%

(C) 25%

(D) 12%

Q19. The average (arithmetic mean) of the ages of three people aged 20, 30 and 40 years is:

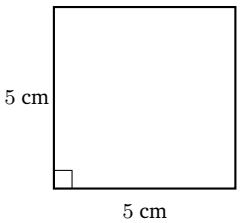
(A) 25 years

(B) 35 years

(C) 30 years

(D) 90 years

Q20. In the square shown, each side measures 5 cm. The area of the square is:



(A) 20 cm^2

(B) 10 cm^2

(C) 50 cm^2

(D) 25 cm^2

Detailed Solutions

Q1.

Solution

Concept — Reading for stated detail: A "detail" question is answered directly from the text; find the sentence that names the relevant agent.

Step 1 — Locate the line: The passage states reefs "are built slowly ... by tiny soft-bodied animals called coral polyps."

Step 2 — Match to the options: This is exactly option (A), "tiny coral polyps".

Why other options are wrong:

- (B) Ocean fish shelter *in* reefs; they do not build them.
- (C) Currents and (D) volcanoes are not mentioned as builders of the reef at all.

Final Answer: Reefs are built by tiny coral polyps $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q1

Q2.

Solution

Concept — Reading for inference: An "inference" question asks what the passage implies as a whole, combining several stated facts.

Step 1 — Gather the clues: Reefs "shelter about a quarter of all marine species" (they are valuable), yet rising temperatures are "bleaching and killing these fragile reefs" (they are threatened).

Step 2 — Combine: Something so valuable and now under threat clearly needs protection — option (B).

Why other options are wrong:

- (A) Reefs *shelter* marine life, so they are not harmful.
- (C) The passage says they are being killed, not growing larger; (D) directly contradicts "rising ocean temperatures are bleaching ... these reefs".

Final Answer: Coral reefs are valuable and need protection $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q2

Q3.

Solution

Concept — Synonyms: A synonym is a word with nearly the same meaning. "Enormous" means extremely large in size or amount.

Step 1 — Recall the meaning: enormous = huge, immense, vast, gigantic.

Step 2 — Match: The closest option is "huge" (C).

Why other options are wrong:

- (A) "tiny" is the direct opposite (an antonym).
- (B) "ordinary" means usual and (D) "narrow" refers to width — neither matches "very large".

Final Answer: enormous $\approx$ huge $\Rightarrow$ C

Answer: (C) Go Back to Q3

Q4.

Solution

Concept — Antonyms: An antonym is a word of opposite meaning. "Accept" means to agree to receive or take something.

Step 1 — Recall the meaning: accept = to take, agree to, approve.

Step 2 — Find the opposite: The opposite of taking or agreeing is to "reject" (refuse) — option (D).

Why other options are wrong:

- (A) "welcome", (B) "receive" and (C) "approve" are all near-synonyms of accept, not opposites.

Final Answer: opposite of accept = reject $\Rightarrow$ D

Answer: (D) Go Back to Q4

Q5.

Solution

Concept — Subject–verb agreement: The pronoun "neither" is singular, so it takes a singular verb ("was"), even when followed by "of the two boys".

Step 1 — Find the subject: The subject is "Neither", not "boys". The phrase "of the two boys" is only a modifier and does not change the number.

Step 2 — Examine part (B): "were" is plural and so disagrees with the singular "neither"; it should be "was". Hence the error lies in part (B).

Why other options are wrong:

- (A) "Neither of the two boys" is a correct subject phrase.
- (C) "present" and (D) "in class" are grammatically correct; only the verb in (B) is wrong.

Final Answer: The error is in part (B) ("were" $\rightarrow$ "was") $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q5

Q6.

Solution

Concept — Prepositions with adjectives: Certain adjectives are always followed by a fixed preposition. The adjective "fond" is always followed by "of".

Step 1 — Recall the collocation: "fond of" (e.g. "fond of sweets", "fond of music").

Step 2 — Choose: The correct preposition is "of" — "fond of classical music" (C).

Why other options are wrong:

- (A) "for", (B) "with" and (D) "in" do not collocate with "fond"; only "of" is idiomatic here.

Final Answer: "fond of classical music" $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q6

Q7.

Solution

Concept — One-word substitution: A single word that replaces a phrase. Here we need the word for the words inscribed on a tomb.

Step 1 — Recall the term: The inscription written on a tomb or gravestone is an *epitaph*.

Step 2 — Match: This is option (D).

Why other options are wrong:

- (A) An "elegy" is a mournful poem, not an inscription on the stone.
- (B) An "obituary" is a death notice in a newspaper; (C) a "biography" is the full life story of a person.

Final Answer: words on a tomb = epitaph $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q7

Q8.

Solution

Concept — Idioms: An idiom carries a figurative meaning different from its literal words. "A white elephant" is a fixed expression.

Step 1 — Recall the meaning: It means a possession that is expensive to keep but brings little or no use or benefit.

Step 2 — Match: This is option (A), "a costly but useless possession".

Why other options are wrong:

- (B) and (D) wrongly read the idiom as good luck.
- (C) takes the phrase literally as an actual animal, ignoring the figurative sense.

Final Answer: the idiom means a costly but useless possession $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q8

Q9.

Solution

Concept — Number series (perfect cubes): Check whether the terms are powers of consecutive integers; cubes grow as $1^3, 2^3, 3^3, \ldots$

Step 1 — Recognise the pattern: $1 = 1^3$, $8 = 2^3$, $27 = 3^3$, $64 = 4^3$. Each term is the cube of the next counting number.

Step 2 — Extend: The next term is $5^3 = 125$.

Why other options are wrong:

- (A) $100 = 10^2$ is a square, not the next cube.
- (C) $81 = 3^4$ and (D) 96 are neither 5^3; only 125 continues the cube pattern.

Final Answer: next term $= 5^3 = 125 \Rightarrow$ B

Answer: (B) Go Back to Q9

Q10.

Solution

Concept — Opposite-letter coding: Each letter is paired with the letter the same distance from the *other* end of the alphabet. The pair sums to 27 in position ($A{+}Z = 1{+}26 = 27$), so the code of a letter at position p is the letter at position $27 - p$.

Step 1 — Encode each letter of ACE:

- A (position 1) $\rightarrow 27 - 1 = 26 =$ Z.
- C (position 3) $\rightarrow 27 - 3 = 24 =$ X.
- E (position 5) $\rightarrow 27 - 5 = 22 =$ V.

Step 2 — Write the code: ZXV, which is option (C).

Why other options are wrong:

- (A) ZYW and (B) YXW shift one or both letters by the wrong amount.
- (D) ZWU mis-maps C and E (it skips to the wrong opposite letters).

Final Answer: ACE $\rightarrow$ ZXV $\Rightarrow$ C

Answer: (C) Go Back to Q10

Q11.

Solution

Concept — Blood relations: Read the relationship from the speaker outward. The speaker here is the boy.

Step 1 — Interpret the statement: "He is the brother of my mother." So the man is the brother of the boy's mother.

Step 2 — Name the relation: The brother of one's mother is one's *maternal uncle*. Hence the man is the boy's maternal uncle — option (D).

Why other options are wrong:

- (A) A "paternal uncle" is the brother of one's *father*, not mother.
- (B) "father" and (C) "grandfather" are different generations, not the mother's brother.

Final Answer: the man is the boy's maternal uncle $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q11

Q12.

Solution

Concept — Direction sense with Pythagoras: A North leg and an East leg are perpendicular, so the straight-line distance from start to end is the hypotenuse of a right triangle.

Step 1 — Identify the legs: He goes 9 km North, then 12 km East. These two legs are at right angles.

Step 2 — Apply Pythagoras:

$$d^2 = 9^2 + 12^2 = 81 + 144 = 225, \qquad d = \sqrt{225} = 15 \text{ km}.$$

(This is the 9-12-15 right triangle, a scaled 3-4-5.)

Why other options are wrong:

- (B) $21 = 9 + 12$ just adds the legs instead of using Pythagoras.
- (C) 13 and (D) 18 do not satisfy $d^2 = 225$.

Final Answer: straight-line distance $= 15$ km $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q12

Q13.

Solution

Concept — Position in a ranked list: (rank from top) + (rank from bottom) = (total) +1.

Step 1 — Apply the formula: rank from bottom = total − rank from top +1 = $40 - 18 + 1$.

Step 2 — Compute: $= 23$. So the girl is 23rd from the bottom.

Why other options are wrong:

- (B) 22 forgets to add the "+1".
- (C) 24 adds one too many; (D) 18 just repeats the rank from the top.

Final Answer: 23rd from the bottom $\Rightarrow$ A

Answer: (A) Go Back to Q13

Q14.

Solution

Concept — Analogy (part : whole): Identify the relationship in the first pair and apply the same relationship to the second.

Step 1 — Relationship: Fingers are the parts that together make up a hand (part : whole).

Step 2 — Apply: In the same way, petals are the parts that together make up a flower. So the missing word is "flower" (B).

Why other options are wrong:

- (A) "leaf", (C) "root" and (D) "stem" are other parts of a plant, but petals specifically belong to a flower, not to these.

Final Answer: Petals : Flower $\Rightarrow$ B

Answer: (B) Go Back to Q14

Q15.

Solution

Concept — Reading and summing a bar chart: Read the height (value) of each bar, then add them to get the total.

Step 1 — Read the bars: Shop P $= 20$, Shop Q $= 40$, Shop R $= 50$, Shop S $= 30$ books.

Step 2 — Add:

$$20 + 40 + 50 + 30 = 140 \text{ books.}$$

Why other options are wrong:

- (A) 120 and (B) 130 miss one bar in the sum.
- (D) 150 over-counts; the correct total of all four bars is 140.

Final Answer: total books sold $= 140 \Rightarrow$ C

Answer: (C) Go Back to Q15

Q16.

Solution

Concept — Pie chart angles: A full circle is 360° and represents 100%. The percentage of any sector is $\dfrac{\text{sector angle}}{360^\circ} \times 100$.

Step 1 — Substitute the angle: The shaded sector is 90°.

Step 2 — Convert to a percentage:

$$\frac{90}{360} \times 100 = \frac{1}{4} \times 100 = 25\%.$$

Why other options are wrong:

- (A) 50% corresponds to 180°; (B) 30% to 108°.
- (C) 20% corresponds to 72° — none of these equals the given 90°.

Final Answer: 90° sector $= 25\% \Rightarrow$ D

Answer: (D) Go Back to Q16

Q17.

Solution

Concept — Finding a percentage of a number: $x\%$ of $N = \dfrac{x}{100} \times N$.

Step 1 — Set up: 15% of $200 = \dfrac{15}{100} \times 200$.

Step 2 — Compute:

$$\frac{15}{100} \times 200 = 15 \times 2 = 30.$$

Why other options are wrong:

- (B) 20 would be 10% of 200; (C) 25 would be 12.5%.
- (D) 15 ignores the multiplication by $200/100 = 2$.

Final Answer: 15% of $200 = 30 \Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q17

Q18.

Solution

Concept — Profit percentage: Profit $\% = \dfrac{\text{Profit}}{\text{Cost Price}} \times 100$, where Profit $=$ SP $-$ CP.

Step 1 — Find the profit: Profit $= 60 - 50 = 10$ rupees.

Step 2 — Compute the percentage:

$$\text{Profit}\% = \frac{10}{50} \times 100 = 20\%.$$

Why other options are wrong:

- (A) 10% uses the profit amount as the percentage directly.
- (C) 25% and (D) 12% do not match $10/50$; the correct ratio gives 20%.

Final Answer: profit $= 20\% \Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q18

Q19.

Solution

Concept — Arithmetic mean: Average $= \dfrac{\text{sum of values}}{\text{number of values}}$.

Step 1 — Add the ages: $20 + 30 + 40 = 90$.

Step 2 — Divide by the count: there are 3 people, so average $= \dfrac{90}{3} = 30$ years.

Why other options are wrong:

- (A) 25 and (B) 35 are not equal to $90/3$.
- (D) 90 is the sum of the ages, not the average.

Final Answer: average age $= 30$ years $\Rightarrow$ C

Answer: (C) Go Back to Q19

Q20.

Solution

Concept — Area of a square: For a square of side a, area $= a \times a = a^2$.

Step 1 — Substitute the side: Here $a = 5$ cm.

Step 2 — Compute:

$$\text{Area} = a^2 = 5 \times 5 = 25 \text{ cm}^2.$$

Why other options are wrong:

- (A) 20 comes from the perimeter (4×5), not the area.
- (B) 10 doubles the side instead of squaring it; (C) 50 doubles the correct area.

Final Answer: area $= 25$ cm^2 $\Rightarrow$ D

Answer: (D) Go Back to Q20

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	A	2	B	3	C	4	D	5	B
6	C	7	D	8	A	9	B	10	C
11	D	12	A	13	A	14	B	15	C
16	D	17	A	18	B	19	C	20	D