SRMJEEE English & Aptitude Sample Paper – 7

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.

> *The internet has changed the way students learn. It gives them access to a vast store of information and to online classes that can be attended from any corner of the world. A learner who once depended on a single textbook can now compare many sources in minutes. Yet this power must be used wisely, for not every page on the internet is accurate or worth the time spent on it.*

Q1. According to the passage, the internet gives students access to:

(A) a vast store of information and online classes

(B) only a single printed textbook

(C) examinations conducted in a hall

(D) free meals during study hours

Q2. The passage suggests that the internet, when used wisely, is:

(A) a complete replacement for all teachers

(B) a powerful tool for learning

(C) harmful to every student who uses it

(D) useful only for entertainment

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

(A) crowded

(B) locked

(C) empty

(D) costly

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

(A) clear

(B) glassy

(C) open

(D) opaque

Q5. Identify the part of the sentence that contains a grammatical error:
"One of my friend (A) / is coming (B) / to the party (C) / tonight. (D)"

(A) part (A)

(B) part (B)

(C) part (C)

(D) part (D)

Q6. Fill in the blank with the correct word:
"The train _____ before I reached the station."

(A) leaves

(B) is leaving

(C) had left

(D) will leave

Q7. Choose the word for the following: "A doctor who treats children."

(A) cardiologist

(B) paediatrician

(C) dermatologist

(D) neurologist

Q8. The idiom "to break the ice" means:

(A) to damage something cold

(B) to win an argument

(C) to waste precious time

(D) to start a conversation and ease the tension

Part B: Aptitude

Q9. Find the next number in the series: $100,\ 96,\ 88,\ 76,\ ?$

(A) 64

(B) 62

(C) 60

(D) 58

Q10. If each letter of a word is shifted one place *forward* in the English alphabet (so that A becomes B, B becomes C, and so on), then "BOY" will be coded as:

(A) CPZ

(B) CQZ

(C) BPZ

(D) DPZ

Q11. Pointing to a girl, a man said, "Her father is my son." How is the girl related to the man?

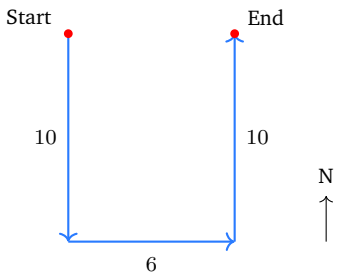
(A) daughter

(B) granddaughter

(C) sister

(D) niece

Q12. A man starts from a point, walks 10 km towards the South, then turns left and walks 6 km, and finally turns left again and walks 10 km, as shown. How far and in which direction is he now from the starting point?



(A) 10 km towards the South

(B) 16 km towards the East

(C) 6 km towards the West

(D) 6 km towards the East

Q13. In a queue, a person is 11th from the front and 9th from the back. How many persons are there in the queue altogether?

(A) 20

(B) 21

(C) 19

(D) 18

Q14. Choose the option that completes the analogy: **Fish : Water :: Bird : ?**

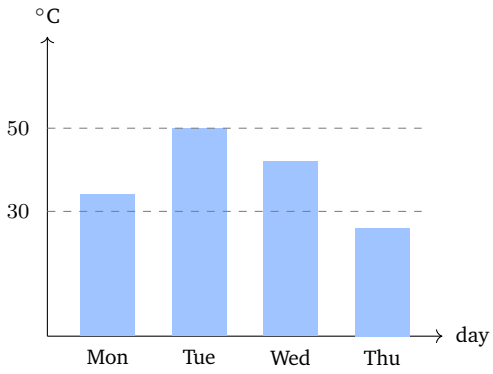
(A) sky

(B) nest

(C) feather

(D) worm

Q15. The bar chart shows the maximum temperature (in °C) recorded on four days of a week. On which day was it the *hottest*?



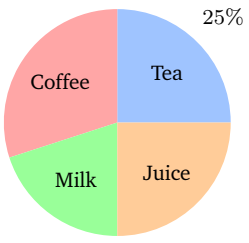
(A) Monday

(B) Tuesday

(C) Wednesday

(D) Thursday

Q16. In a survey of **720** people, the pie chart shows the kind of drink each group prefers. The number of people who prefer *Tea* is:



(A) 90

(B) 360

(C) 240

(D) 180

Q17. In a class, 60% of the students passed an examination and 80 students failed. The total number of students in the class is:

(A) 200

(B) 160

(C) 240

(D) 133

Q18. An article whose cost price is Rs. 1000 is sold at a loss of 15%. The selling price of the article is:

(A) Rs. 1150

(B) Rs. 850

(C) Rs. 985

(D) Rs. 150

Q19. The Highest Common Factor (HCF) of 24 and 36 is:

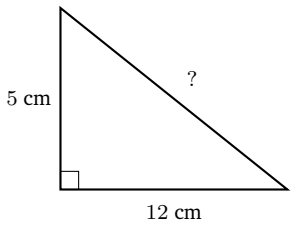
(A) 6

(B) 72

(C) 12

(D) 4

Q20. In the right-angled triangle shown, the two perpendicular sides measure 5 cm and 12 cm. The length of the hypotenuse is:



(A) 17 cm

(B) 7 cm

(C) 15 cm

(D) 13 cm

Detailed Solutions

Q1.

Solution

Concept — Reading for stated detail: A "detail" question is answered directly from the text; locate the sentence that names what is asked.

Step 1 — Locate the line: The passage states that the internet "gives them access to a vast store of information and to online classes that can be attended from any corner of the world."

Step 2 — Match to the options: This is exactly option (A).

Why other options are wrong:

- (B) The single printed textbook is what a learner depended on *before*; the internet replaces that limitation.
- (C) Examinations in a hall and (D) free meals are never mentioned in the passage.

Final Answer: a vast store of information and online classes $\Rightarrow$ $\boxed{\text{A}}$

$\boxed{\text{Answer: (A)}}$ Go Back to Q1

Q2.

Solution

Concept — Reading for the main idea / inference: An "inference" question asks what the passage implies as a whole, not a single fact.

Step 1 — Gather the clues: The passage praises the access and comparison the internet allows, but warns that "this power must be used wisely."

Step 2 — Interpret: Put together, the passage implies that the internet, used wisely, is a powerful tool for learning — option (B).

Why other options are wrong:

- (A) The passage never says it replaces teachers; it adds to learning, not removes the teacher.
- (C) It is not harmful to every student; the caution is only that not every page is accurate. (D) It is far more than entertainment.

Final Answer: a powerful tool for learning $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q2

Q3.

Solution

Concept — Synonyms: A synonym is a word with nearly the same meaning. "Vacant" means not occupied, having nothing or no one inside.

Step 1 — Recall the meaning: vacant = empty, unoccupied, void.

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

Why other options are wrong:

- (A) "crowded" is the opposite (an antonym).
- (B) "locked" describes being shut, not being empty; (D) "costly" refers to price — unrelated.

Final Answer: vacant $\approx$ empty $\Rightarrow$ C

Answer: (C) Go Back to Q3

Q4.

Solution

Concept — Antonyms: An antonym is a word of opposite meaning. "Transparent" means allowing light to pass through so that objects behind can be seen clearly.

Step 1 — Recall the meaning: transparent = clear, see-through.

Step 2 — Find the opposite: The opposite is "opaque", meaning it does not let light through — option (D).

Why other options are wrong:

- (A) "clear" and (B) "glassy" are near-synonyms of transparent.
- (C) "open" refers to access, not to letting light through, so it is not the opposite of transparent.

Final Answer: opposite of transparent = opaque $\Rightarrow$ D

Answer: (D) Go Back to Q4

Q5.

Solution

Concept — "One of" construction: The phrase "one of" is always followed by a *plural* noun, because it selects one item from a group of many.

Step 1 — Examine part (A): "One of my friend" is incorrect; the noun must be plural: "One of my *friends*."

Step 2 — Check the rest: "is coming" (the verb agrees with the singular "one"), "to the party" and "tonight" are all correct, so the error is confined to part (A).

Why other options are wrong:

- (B) "is coming" is right because the subject "one" is singular.
- (C),(D) contain no grammatical error; only the noun in (A) should be plural.

Final Answer: The error is in part (A) ("friend" should be "friends") $\Rightarrow \boxed{\text{A}}$

Answer: (A) Go Back to Q5

Q6.

Solution

Concept — Past perfect tense: When two past actions happen one after the other, the action that happened *first* takes the past perfect ("had" + past participle), and the later action takes the simple past.

Step 1 — Order the actions: The train leaving happened *before* "I reached the station" (simple past).

Step 2 — Choose the form: The earlier action takes the past perfect: "had left" — option (C).

Why other options are wrong:

- (A) "leaves" is simple present; (B) "is leaving" is present continuous — both clash with the past clause "before I reached."
- (D) "will leave" is future, which cannot describe an action already over.

Final Answer: "had left" $\Rightarrow \boxed{\text{C}}$

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 a doctor who treats children.

Step 1 — Recall the term: A doctor who specialises in the treatment of children is a *paediatrician*.

Why other options are wrong:

- (A) a "cardiologist" treats the heart.
- (C) a "dermatologist" treats the skin; (D) a "neurologist" treats the nerves and brain — none is specific to children.

Final Answer: a doctor who treats children = paediatrician $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q7

Q8.

Solution

Concept — Idioms: An idiom carries a figurative meaning different from the literal words. "To break the ice" is a fixed expression.

Step 1 — Recall the meaning: It means to start a conversation in a social setting and ease the initial awkwardness or tension.

Step 2 — Match: This is option (D), "to start a conversation and ease the tension".

Why other options are wrong:

- (A) takes the words literally (damaging something cold).
- (B) "win an argument" and (C) "waste time" have nothing to do with the idiom's accepted meaning.

Final Answer: the idiom means to start a conversation and ease the tension $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q8

Q9.

Solution

Concept — Number series (difference pattern): Look at the differences between consecutive terms; a regular pattern there predicts the next term.

Step 1 — Find the differences: $96 - 100 = -4$, $88 - 96 = -8$, $76 - 88 = -12$. The terms are decreasing, and the gap grows by 4 each time: $-4, -8, -12, \ldots$

Step 2 — Extend: The next gap is -16, so the next term is $76 - 16 = 60$.

Why other options are wrong:

- (A) 64 assumes a gap of only -12 again, ignoring the growth.
- (B) 62 does not match any consistent gap; (D) 58 uses a gap of -18, overshooting the -16 pattern.

Final Answer: next term $= 60 \Rightarrow$ C

Answer: (C) Go Back to Q9

Q10.

Solution

Concept — Shift coding: Each letter is replaced by the letter that comes one place *after* it in the alphabet (a $+1$ shift).

Step 1 — Shift each letter of BOY: B $\to$ C, O $\to$ P, Y $\to$ Z.

Step 2 — Write the code: CPZ, which is option (A).

Why other options are wrong:

- (B) CQZ shifts O by two places (O $\to$ P, not Q).
- (C) BPZ leaves B unchanged; (D) DPZ shifts B by two places (B $\to$ C, not D).

Final Answer: BOY $\to$ CPZ $\Rightarrow$ A

Answer: (A) Go Back to Q10

Q11.

Solution

Concept — Blood relations: Work outward from the speaker, decoding the statement one link at a time.

Step 1 — Interpret the phrase: "Her father is my son" means the girl's father is the man's son.

Step 2 — Find the link: If the girl's father is the man's son, then the girl is the daughter of the man's son — that is, the man's granddaughter.

Why other options are wrong:

- (A) "daughter" would mean the man is her father, but here he is her grandfather.
- (C) "sister" and (D) "niece" do not fit a two-generation, son-then-daughter chain.

Final Answer: the girl is the man's granddaughter $\Rightarrow$ B

Answer: (B) Go Back to Q11

Q12.

Solution

Concept — Direction sense: Track the position on a North–South / East–West grid, taking "turn left" relative to the current facing direction.

Step 1 — Trace the walk: South 10 km (now facing S). Turn left $\rightarrow$ faces East, walks 6 km East. Turn left $\rightarrow$ faces North, walks 10 km North.

Step 2 — Net displacement: The 10 km South and 10 km North cancel, leaving only 6 km East. So he is 6 km due East of the start.

Why other options are wrong:

- (A) the South/North legs cancel, so the answer is not South.
- (B) 16 km adds the legs instead of cancelling them; (C) the eastward leg makes the direction East, not West.

Final Answer: 6 km towards the East $\Rightarrow$ D

Answer: (D) Go Back to Q12

Q13.

Solution

Concept — Total from two-sided position: When a person's positions from both ends are given, total = (position from front) + (position from back) -1, because that person is counted in both numbers.

Step 1 — Apply the formula: total $= 11 + 9 - 1$.

Step 2 — Compute: $= 20 - 1 = 19$. So there are 19 persons in the queue.

Why other options are wrong:

- (A) 20 forgets to subtract the 1 for the double-counted person.
- (B) 21 adds an extra person; (D) 18 subtracts 2 instead of 1.

Final Answer: total $= 19 \Rightarrow$ C

Answer: (C) Go Back to Q13

Q14.

Solution

Concept — Analogy (creature : natural habitat): Identify the relationship in the first pair and apply the same relationship to the second.

Step 1 — Relationship: A fish lives and moves in water (creature : the medium it moves through).

Step 2 — Apply: A bird flies through the sky (the air). So the missing word is "sky" (A).

Why other options are wrong:

- (B) "nest" is where a bird rests, not the medium it moves through, unlike water for a fish.
- (C) "feather" is a part of a bird; (D) "worm" is its food — neither matches the habitat relationship.

Final Answer: Bird : Sky $\Rightarrow$ A

Answer: (A) Go Back to Q14

Q15.

Solution

Concept — Reading a bar chart: The height of each bar gives the value; the tallest bar is the maximum.

Step 1 — Read the bars: Mon $= 34$, Tue $= 50$, Wed $= 42$, Thu $= 26$ (°C).

Step 2 — Compare: The tallest bar (value 50) is Tuesday, so it was hottest on Tuesday.

Why other options are wrong:

- (A) Monday (34) and (C) Wednesday (42) are both below Tuesday's 50.
- (D) Thursday (26) is the *coolest*, not the hottest.

Final Answer: hottest on Tuesday $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q15

Q16.

Solution

Concept — Reading a pie chart: Each sector's percentage of the whole is multiplied by the total to get the actual number.

Step 1 — Identify the share: "Tea" occupies 25% of the survey.

Step 2 — Compute the number:

$$25\% \text{ of } 720 = \frac{25}{100} \times 720 = 180.$$

So 180 people prefer tea.

Why other options are wrong:

- (A) 90 is 12.5% of 720; (B) 360 is 50%.
- (C) 240 is one-third (33.3%) — none equals the 25% tea share.

Final Answer: Tea $= 180$ people $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q16

Q17.

Solution

Concept — Percentage of a whole: If a given percentage passed, the rest is the failing percentage; equate the failing percentage to the known count to find the total.

Step 1 — Find the failing percentage: 60% passed, so $100\% - 60\% = 40\%$ failed.

Step 2 — Set up and solve: 40% of the total $= 80$, i.e. $\frac{40}{100} \times T = 80 \Rightarrow 0.4\,T = 80 \Rightarrow T = \frac{80}{0.4} = 200$.

Step 3 — Check: 40% of $200 = 80$ failed and 60% of $200 = 120$ passed; $120 + 80 = 200$ ✓.

Why other options are wrong:

- (B) 160 would make 40% equal 64, not 80.
- (C) 240 gives $40\% = 96$; (D) 133 comes from wrongly treating 60% as the failing share.

Final Answer: total $= 200$ students $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q17

Q18.

Solution

Concept — Selling price at a loss: When an article is sold at a loss, Selling Price $=$ Cost Price $-$ Loss, where Loss $=$ (loss %) of Cost Price.

Step 1 — Find the loss amount: Loss $= 15\%$ of $1000 = \frac{15}{100} \times 1000 = 150$ rupees.

Step 2 — Find the selling price: SP $= 1000 - 150 = 850$. (Equivalently, SP $= 85\%$ of $1000 = 850$.)

Why other options are wrong:

- (A) Rs. 1150 adds the 15% as a profit instead of subtracting it as a loss.
- (C) Rs. 985 subtracts only 1.5%; (D) Rs. 150 is the loss itself, not the selling price.

Final Answer: selling price $=$ Rs. $850 \Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q18

Q19.

Solution

Concept — Highest Common Factor (HCF): The HCF of two numbers is the largest number that divides both exactly. One way is to compare their prime factorisations.

Step 1 — Factorise: $24 = 2^3 \times 3$ and $36 = 2^2 \times 3^2$.

Step 2 — Take the common factors with the lowest powers: common to both are 2^2 and 3, so HCF $= 2^2 \times 3 = 4 \times 3 = 12$.

Why other options are wrong:

- (A) 6 divides both but is not the *highest* common factor (12 is larger and still divides both).
- (B) 72 is the LCM, not the HCF; (D) 4 does not use the common factor 3.

Final Answer: HCF of 24 and $36 = 12 \Rightarrow$ C

Answer: (C) Go Back to Q19

Q20.

Solution

Concept — Pythagoras' theorem: In a right-angled triangle, hypotenuse^2 = base^2 + height^2.

Step 1 — Substitute: $h^2 = 12^2 + 5^2 = 144 + 25 = 169$.

Step 2 — Take the square root: $h = \sqrt{169} = 13$ cm. (This is the well-known 5-12-13 right triangle.)

Why other options are wrong:

- (A) 17 adds the legs ($5 + 12$) instead of using Pythagoras.
- (B) 7 is the difference of the legs; (C) 15 does not satisfy $h^2 = 169$.

Final Answer: hypotenuse $= 13$ cm $\Rightarrow$ 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	A
6	C	7	B	8	D	9	C	10	A
11	B	12	D	13	C	14	A	15	B
16	D	17	A	18	B	19	C	20	D