

SRMJEEE English & Aptitude Sample Paper – 5

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.

Every year, millions of migratory birds travel thousands of kilometres across the globe. As winter approaches and food grows scarce in their summer homes, they set out for warmer regions where food is plentiful. To find their way across vast oceans and continents, these birds navigate using the position of the Sun, the pattern of the stars at night, and even the Earth's magnetic field. When spring returns, they make the long journey back once more.

- Q1.** According to the passage, migratory birds leave their summer homes mainly because:
- (A) winter approaches and food becomes scarce
 - (B) they dislike the company of other birds
 - (C) the Earth's magnetic field pushes them away
 - (D) the stars disappear from the night sky



- Q2.** Which of the following best expresses the main idea suggested by the passage?
- (A) Birds are unable to survive any cold weather at all
 - (B) Migration is a remarkable natural adaptation of birds
 - (C) The Sun is the only guide that birds ever rely on
 - (D) Birds travel only short distances during the year
- Q3.** Choose the word that is most nearly *similar* in meaning to the word **ANCIENT**:
- (A) modern
 - (B) brief
 - (C) old
 - (D) rapid
- Q4.** Choose the word that is most nearly *opposite* in meaning to the word **PERMANENT**:
- (A) lasting
 - (B) solid
 - (C) constant
 - (D) temporary
- Q5.** Identify the part of the sentence that contains a grammatical error:
“The news (A) / are (B) / very good (C) / today. (D)”
- (A) part (A)
 - (B) part (B)
 - (C) part (C)
 - (D) part (D)
- Q6.** Fill in the blank with the correct word:
“He has ____ M.A. degree.”



- (A) an
- (B) a
- (C) the
- (D) no article

Q7. Choose the word for the following: “A person who writes books or novels.”

- (A) reader
- (B) printer
- (C) author
- (D) critic

Q8. The idiom “to hit the nail on the head” means:

- (A) to do hard physical work
- (B) to hurt oneself badly
- (C) to act in great anger
- (D) to be exactly right

Part B: Aptitude

Q9. Find the next number in the series: 5, 10, 20, 40, ?

- (A) 80
- (B) 60
- (C) 70
- (D) 50

Q10. If each letter is shifted two places forward in the alphabet (so that A→C, B→D, and so on), then the word “WORD” will be coded as:

- (A) XPSE
- (B) YQTF

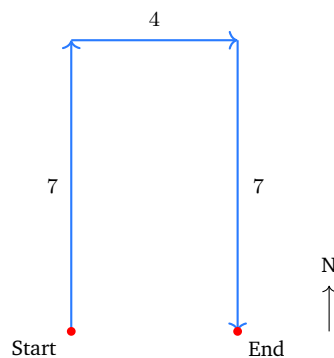


- (C) YPTF
- (D) UMPB

Q11. Pointing to a boy, Rahul said, “He is my father’s only brother’s only son.”
How is the boy related to Rahul?

- (A) brother
- (B) uncle
- (C) cousin
- (D) nephew

Q12. A man walks 7 km towards the North, then turns right and walks 4 km, and finally turns right again and walks 7 km, as shown. How far and in which direction is he now from his starting point?



- (A) 7 km towards the North
- (B) 11 km towards the East
- (C) 7 km towards the East
- (D) 4 km towards the East

Q13. In a class, a student is 15th from the top and 20th from the bottom in order of marks. How many students are there in the class?

- (A) 34
- (B) 35
- (C) 33

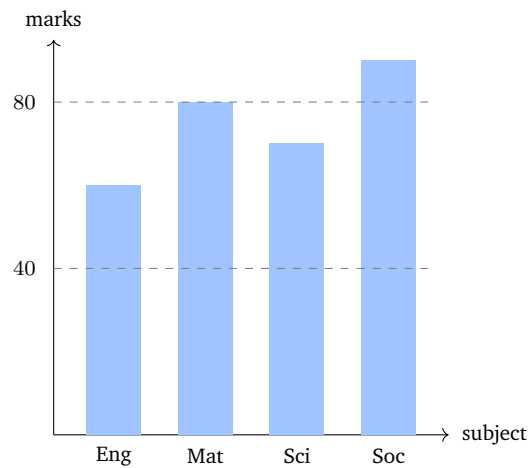


(D) 36

Q14. Choose the option that completes the analogy: **Hot : Cold :: Up : ?**

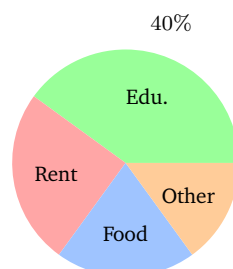
- (A) high
- (B) down
- (C) climb
- (D) top

Q15. The bar chart shows the marks scored by a student in four subjects. What is the *average* mark scored by the student across the four subjects?



- (A) 70
- (B) 80
- (C) 75
- (D) 65

Q16. The pie chart shows how a family's monthly expenses of **Rs. 18,000** are divided. The amount the family spends on *Education* is:



- (A) Rs. 3,600
- (B) Rs. 9,000
- (C) Rs. 5,400
- (D) Rs. 7,200

Q17. What is 30% of 150?

- (A) 45
- (B) 50
- (C) 30
- (D) 60

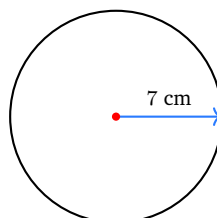
Q18. A trader buys an article for Rs. 800 and sells it for Rs. 1000. His profit percentage is:

- (A) 20%
- (B) 25%
- (C) 30%
- (D) 10%

Q19. The average (arithmetic mean) of the numbers 10, 20, 30 and 40 is:

- (A) 20
- (B) 30
- (C) 25
- (D) 100

Q20. The circle shown has a radius of 7 cm. Taking $\pi = \frac{22}{7}$, the circumference of the circle is:



- (A) 22 cm
- (B) 49 cm
- (C) 154 cm
- (D) 44 cm



Detailed Solutions

Q1.

Solution

Concept — Reading for stated detail: A “detail” question is answered directly from the text; locate the sentence that gives the reason asked for.

Step 1 — Locate the line: The passage says, “As winter approaches and food grows scarce in their summer homes, they set out for warmer regions.”

Step 2 — Match to the options: The reason for leaving is the approach of winter and the shortage of food — exactly option (A).

Why other options are wrong:

- (B) The passage never says birds dislike one another.
- (C) The magnetic field helps them *navigate*; it does not drive them away. (D) The stars are a navigation aid, not a cause of departure.

Final Answer: Winter approaches and food becomes scarce ⇒

[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 — Take the passage together: Birds cross thousands of kilometres, time their journeys to the seasons, and steer by the Sun, the stars and the magnetic field.

Step 2 — Interpret: Such precise, seasonal, long-distance travel is best summed up as a remarkable natural adaptation — option (B).

Why other options are wrong:

- (A) Overstates the text; birds move to avoid scarce food, not because they cannot survive any cold.
- (C) The Sun is only one of several guides mentioned. (D) The passage stresses journeys of “thousands of kilometres”, the opposite of short distances.

Final Answer: Migration is a remarkable natural adaptation ⇒



Answer: (B) [Go Back to Q2](#)

Q3.

Solution

Concept — Synonyms: A synonym is a word with nearly the same meaning. “Ancient” means belonging to the very distant past; very old.

Step 1 — Recall the meaning: ancient = old, age-old, very old.

Step 2 — Match: The closest option is “old” (C).

Why other options are wrong:

- (A) “modern” is the opposite (an antonym).
- (B) “brief” refers to short duration and (D) “rapid” to speed — neither relates to age.

Final Answer: ancient \approx old \Rightarrow

Answer: (C) [Go Back to Q3](#)

Q4.

Solution

Concept — Antonyms: An antonym is a word of opposite meaning. “Permanent” means lasting forever or for a very long time.

Step 1 — Recall the meaning: permanent = lasting, fixed, unchanging.

Step 2 — Find the opposite: Something that lasts only for a short time is “temporary” — option (D).

Why other options are wrong:

- (A) “lasting” and (C) “constant” are near-synonyms of permanent, not opposites.
- (B) “solid” describes a state of matter or firmness, not duration.

Final Answer: opposite of permanent = temporary \Rightarrow

Answer: (D) [Go Back to Q4](#)



Q5.

Solution

Concept — Subject-verb agreement (uncountable nouns): Some nouns that end in “-s” are singular and uncountable, such as *news*, *mathematics* and *physics*. They take a singular verb.

Step 1 — Examine part (B): The subject “news” is singular, so it needs “is”, not “are”. Hence “are” in part (B) is the error; it should read “The news is very good today.”

Step 2 — Check the rest: “The news” (A), “very good” (C) and “today” (D) are all correct, so the error lies only in part (B).

Why other options are wrong:

- (A), (C), (D) contain no grammatical error; only the verb “are” in part (B) disagrees with the singular subject.

Final Answer: The error is in part (B) (“are” should be “is”) ⇒ **B**

Answer: (B) [Go Back to Q5](#)

Q6.

Solution

Concept — “A” vs “an” (sound, not spelling): Use “an” before a word that *begins with a vowel sound*, and “a” before a consonant sound. What matters is the sound, not the first letter.

Step 1 — Test the sound of “M.A.”: The letter “M” is pronounced “em”, which begins with the vowel sound /e/.

Step 2 — Choose the article: Because the sound is a vowel sound, the correct article is “an” — “an M.A. degree” (A).

Why other options are wrong:

- (B) “a” is used before a consonant sound, but “M” here sounds like “em”.
- (C) “the” is a definite article, wrong for a first, general mention; (D) an article is needed, so omission is incorrect.

Final Answer: “an M.A. degree” ⇒ **A**

Answer: (A) [Go Back to Q6](#)



Q7.

Solution

Concept — One-word substitution: A single word that replaces a phrase. Here we need the word for someone who writes books or novels.

Step 1 — Recall the term: A person who writes books or novels is an *author* (also called a writer).

Step 2 — Match: This is option (C).

Why other options are wrong:

- (A) “reader” is one who reads, not one who writes.
- (B) “printer” prints the finished book; (D) “critic” reviews or judges a book — neither writes it.

Final Answer: one who writes books = author \Rightarrow

Answer: (C) [Go Back to Q7](#)

Q8.

Solution

Concept — Idioms: An idiom carries a figurative meaning different from the literal words. “To hit the nail on the head” is a fixed expression.

Step 1 — Recall the meaning: It means to say or do something exactly right — to describe a situation or its cause precisely.

Step 2 — Match: This is option (D), “to be exactly right”.

Why other options are wrong:

- (A) “hard physical work” and (B) “hurt oneself” take the words literally.
- (C) “act in great anger” has no connection with the idiom’s accepted meaning.

Final Answer: the idiom means to be exactly right \Rightarrow

Answer: (D) [Go Back to Q8](#)



Q9.

Solution

Concept — Number series (ratio pattern): Check whether each term is obtained from the previous one by multiplying by a fixed number.

Step 1 — Find the ratio: $10 \div 5 = 2$, $20 \div 10 = 2$, $40 \div 20 = 2$. Each term is double the one before it.

Step 2 — Extend: The next term is $40 \times 2 = 80$.

Why other options are wrong:

- (B) 60 and (C) 70 treat the series as if it grew by a constant addition, which it does not.
- (D) 50 adds only 10, ignoring the doubling pattern.

Final Answer: next term = 80 \Rightarrow

Answer: (A) [Go Back to Q9](#)

Q10.

Solution

Concept — Shift coding: Each letter moves a fixed number of places along the alphabet. Here every letter moves 2 places forward (A \rightarrow C, B \rightarrow D, ...).

Step 1 — Shift each letter of WORD by +2: W \rightarrow Y, O \rightarrow Q, R \rightarrow T, D \rightarrow F.

Step 2 — Write the code: The result is “YQTF”, option (B).

Why other options are wrong:

- (A) “XPSE” shifts each letter only 1 place forward.
- (C) “YPTF” miscounts O \rightarrow P instead of O \rightarrow Q; (D) “UMPB” shifts *backward* by 2.

Final Answer: WORD \rightarrow YQTF \Rightarrow

Answer: (B) [Go Back to Q10](#)



Q11.

Solution

Concept — Blood relations: Decode the phrase from the inside out, one relation at a time.

Step 1 — Interpret “my father’s only brother”: This is Rahul’s uncle (his father’s brother).

Step 2 — Interpret “only son” of that uncle: The son of Rahul’s uncle is Rahul’s cousin. So the boy is Rahul’s cousin.

Why other options are wrong:

- (A) “brother” would be his father’s own son, not his uncle’s son.
- (B) “uncle” is the father’s brother himself, not that brother’s son. (D) “nephew” would reverse the generations.

Final Answer: the boy is Rahul’s cousin \Rightarrow

Answer: (C) [Go Back to Q11](#)

Q12.

Solution

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

Step 1 — Trace the walk: North 7 km (now facing N). Turn right \rightarrow faces East, walks 4 km East. Turn right \rightarrow faces South, walks 7 km South.

Step 2 — Net displacement: The 7 km North and 7 km South cancel exactly, leaving only the 4 km East. So he is 4 km due East of his start.

Why other options are wrong:

- (A) the North and South legs cancel, so the answer is not North.
- (B) 11 km adds the legs instead of cancelling them; (C) 7 km uses a wrong leg.

Final Answer: 4 km towards the East \Rightarrow

Answer: (D) [Go Back to Q12](#)



Q13.

Solution

Concept — Position from both ends: When a single person is counted from both ends of one ordering, the total = (rank from top) + (rank from bottom) - 1. The “-1” avoids counting that person twice.

Step 1 — Apply the formula: total = 15 + 20 - 1.

Step 2 — Compute: = 35 - 1 = 34. So there are 34 students in the class.

Why other options are wrong:

- (B) 35 forgets to subtract the 1 for the double-counted student.
- (C) 33 subtracts 2 by mistake; (D) 36 adds an extra 1.

Final Answer: total students = 34 ⇒

Answer: (A) [Go Back to Q13](#)

Q14.

Solution

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

Step 1 — Relationship: “Hot” and “Cold” are opposites (antonyms).

Step 2 — Apply: The opposite of “Up” is “Down”. So the missing word is “down” (B).

Why other options are wrong:

- (A) “high” is a synonym of up, not its opposite.
- (C) “climb” is an action and (D) “top” is a position; neither is the antonym of up.

Final Answer: Up : Down ⇒

Answer: (B) [Go Back to Q14](#)



Q15.

Solution

Concept — Average from a bar chart: Read each bar's value, add them, and divide by the number of bars.

Step 1 — Read the bars: English = 60, Maths = 80, Science = 70, Social = 90 marks.

Step 2 — Add the marks: $60 + 80 + 70 + 90 = 300$.

Step 3 — Divide by the count: there are 4 subjects, so average = $\frac{300}{4} = 75$.

Why other options are wrong:

- (A) 70 and (D) 65 are below the true mean of the four values.
- (B) 80 is the Maths bar alone, not the average of all four.

Final Answer: average mark = 75 \Rightarrow C

Answer: (C) [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 amount.

Step 1 — Identify the share: "Education" occupies 40% of the budget.

Step 2 — Compute the amount:

$$40\% \text{ of } 18000 = \frac{40}{100} \times 18000 = 7200.$$

So Rs. 7,200 is spent on education.

Why other options are wrong:

- (A) Rs. 3600 would be 20%; (B) Rs. 9000 is 50%.
- (C) Rs. 5400 is 30% — none equals the 40% education share.

Final Answer: Education = Rs. 7,200 \Rightarrow D

Answer: (D) [Go Back to Q16](#)



Q17.

Solution

Concept — Finding a percentage of a number: “ $p\%$ of N ” means $\frac{p}{100} \times N$.

Step 1 — Set up: 30% of $150 = \frac{30}{100} \times 150$.

Step 2 — Compute: $= 0.3 \times 150 = 45$.

Step 3 — Check: 45 is just under one-third of 150 (one-third would be 50), which fits 30% ✓.

Why other options are wrong:

- (B) 50 is 33.3% of 150, not 30%; (C) 30 is 20% of 150.
- (D) 60 is 40% of 150 — none equals 30%.

Final Answer: 30% of $150 = 45 \Rightarrow$ **A**

Answer: (A) [Go Back to Q17](#)

Q18.

Solution

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

Step 1 — Find the profit: Profit = $1000 - 800 = 200$ rupees.

Step 2 — Compute the percentage:

$$\text{Profit}\% = \frac{200}{800} \times 100 = 25\%.$$

Why other options are wrong:

- (A) 20% wrongly divides by the selling price (200/1000).
- (C) 30% and (D) 10% do not match 200/800.

Final Answer: profit = 25% \Rightarrow **B**

Answer: (B) [Go Back to Q18](#)



Q19.

Solution

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

Step 1 — Add the numbers: $10 + 20 + 30 + 40 = 100$.

Step 2 — Divide by the count: there are 4 numbers, so average = $\frac{100}{4} = 25$.

Why other options are wrong:

- (A) 20 and (B) 30 are individual values, not the mean of all four.
- (D) 100 is the sum, not the average.

Final Answer: average = 25 \Rightarrow **C**

Answer: (C) [Go Back to Q19](#)

Q20.

Solution

Concept — Circumference of a circle: The circumference is $C = 2\pi r$, where r is the radius.

Step 1 — Substitute: $r = 7$ cm and $\pi = \frac{22}{7}$, so

$$C = 2 \times \frac{22}{7} \times 7.$$

Step 2 — Simplify: the 7 cancels with the denominator: $C = 2 \times 22 = 44$ cm.

Why other options are wrong:

- (A) 22 cm uses πr instead of $2\pi r$.
- (B) 49 cm and (C) 154 cm come from r^2 or πr^2 (an area calculation), not circumference.

Final Answer: circumference = 44 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	B
6	A	7	C	8	D	9	A	10	B
11	C	12	D	13	A	14	B	15	C
16	D	17	A	18	B	19	C	20	D

