

Rubber Board Recruitment 2026

Field Officer – Guess Question Paper

Career Decode

Conducting Body	Rubber Board (Ministry of Commerce & Industry, Govt. of India)
Post	Field Officer
Total Questions	100 MCQs
Total Marks	400
Marking Scheme	+4 per correct answer; -1 per wrong answer
Duration	2 Hours
Mode	Offline (OMR-based)
Sections	Reasoning English Language Quantitative Aptitude Professional Knowledge

1 Reasoning Ability

Questions 1–20

(20 Questions)

Q.1. Ravi walks 5 km North, then turns East and walks 3 km, then turns South and walks 5 km. How far is he from his starting point?

- (A) 2 km
- (B) 5 km
- (C) 3 km
- (D) 8 km

Q.2. If MANGO is coded as NBOHP, how is GUAVA coded?

- (A) HVBWB
- (B) FTVZU
- (C) HVBXB
- (D) HVBWC

Q.3. Find the odd one out: 13, 17, 19, 21, 23

- (A) 13
- (B) 19
- (C) 21
- (D) 23

Q.4. A is the mother of B. B is the sister of C. C is the father of D. What is A to D?

- (A) Mother

- (B) Aunt
 - (C) Grandmother
 - (D) Sister
- Q.5.** Which number comes next in the series: 2, 6, 12, 20, 30, ___?
- (A) 40
 - (B) 42
 - (C) 44
 - (D) 36
- Q.6.** If all Roses are Flowers and some Flowers are Red, which conclusion is definitely true?
- (A) All Roses are Red
 - (B) Some Roses are Red
 - (C) All Flowers are Roses
 - (D) None of the above
- Q.7.** Complete the analogy: Seed : Plant :: Egg : ___
- (A) Nest
 - (B) Bird
 - (C) Shell
 - (D) Feather
- Q.8.** A clock shows 4:20. What is the angle between the hour hand and the minute hand?
- (A) 0°
 - (B) 10°
 - (C) 5°
 - (D) 15°
- Q.9.** How many triangles are in a figure that has 4 straight lines passing through a common point?
- (A) 4
 - (B) 6
 - (C) 8
 - (D) 12
- Q.10.** Pointing to a photograph, Suresh said, "He is the son of my mother's only son." What is the relation of the person in the photograph to Suresh?
- (A) Brother
 - (B) Nephew
 - (C) Son
 - (D) Cousin

- Q.11.** Choose the mirror image of the word RUBBER when the mirror is placed vertically on the right side.
- (A) REBBUR
 - (B) RUBBER reversed
 - (C) The letters appear reversed left-to-right individually
 - (D) RUBBUR
- Q.12.** In a certain code, 529 means “rubber is good”, 246 means “good plantation area”, and 374 means “area needs water”. What is the code for “plantation”?
- (A) 2
 - (B) 4
 - (C) 6
 - (D) 9
- Q.13.** Arrange the following in a logical order: (1) Seedling, (2) Mature tree, (3) Seed, (4) Sapling, (5) Bud
- (A) 3, 5, 1, 4, 2
 - (B) 3, 1, 4, 5, 2
 - (C) 5, 3, 1, 4, 2
 - (D) 3, 1, 5, 4, 2
- Q.14.** Which of the following figures can be formed using the pieces: a right triangle and a rectangle?
- (A) Circle
 - (B) Pentagon
 - (C) Trapezium
 - (D) Hexagon
- Q.15.** In a row of 40 students, Priya is 12th from the left. What is her position from the right?
- (A) 28th
 - (B) 29th
 - (C) 27th
 - (D) 30th
- Q.16.** Find the missing term: ACE, BDF, CEG, ___?
- (A) DFH
 - (B) DEG
 - (C) EFG
 - (D) CFH
- Q.17.** A man goes 8 km East, then 6 km North. What is the straight-line distance from the starting point?

- (A) 14 km
 - (B) 10 km
 - (C) 12 km
 - (D) 8 km
- Q.18.** Six friends sit around a circular table. A is opposite B, C is to the right of A. D is between B and E. Who is to the left of B?
- (A) E
 - (B) D
 - (C) F
 - (D) C
- Q.19.** Statement: All farmers are hardworking. Some hardworking people are educated. Conclusion I: Some farmers are educated. Conclusion II: All educated people are farmers. Which is correct?
- (A) Only Conclusion I follows
 - (B) Only Conclusion II follows
 - (C) Both follow
 - (D) Neither follows
- Q.20.** Which letter is exactly in the middle of the English alphabet between J and T?
- (A) N
 - (B) O
 - (C) M
 - (D) P

2 English Language

Questions 21–40

(20 Questions)

- Q.21.** Choose the correct synonym of **ARID**:
- (A) Wet
 - (B) Dry
 - (C) Fertile
 - (D) Cool
- Q.22.** Choose the correct antonym of **ABUNDANT**:
- (A) Plentiful
 - (B) Scarce
 - (C) Ample
 - (D) Sufficient

- Q.23.** Fill in the blank: The rubber plantation ___ severely damaged by the storm last night.
- (A) were
 - (B) was
 - (C) are
 - (D) is
- Q.24.** Identify the error in the sentence: “Each of the field officers have submitted their report on time.”
- (A) Each of the
 - (B) field officers
 - (C) have submitted
 - (D) their report
- Q.25.** Choose the word that is correctly spelt:
- (A) Agronmy
 - (B) Agronommy
 - (C) Agronomy
 - (D) Agronemi
- Q.26.** Select the meaning of the idiom: “Beat around the bush”
- (A) Work very hard
 - (B) Avoid coming to the main point
 - (C) Search in the forest
 - (D) Complete work quickly
- Q.27.** Rearrange the jumbled sentence: officers / the / plantation / inspected / field / rubber
- (A) The rubber plantation field officers inspected
 - (B) The field officers inspected the rubber plantation
 - (C) Field officers the rubber plantation inspected
 - (D) Officers the rubber field inspected plantation
- Q.28.** Choose the correct one-word substitution for: “One who studies soil and its properties”:
- (A) Botanist
 - (B) Pedologist
 - (C) Agronomist
 - (D) Entomologist
- Q.29.** Fill in the blank: He is ___ best agronomist I have ever met.
- (A) a

- (B) an
(C) the
(D) no article needed
- Q.30.** Which of the following is a compound sentence?
- (A) He works hard.
(B) She planted the seeds and he watered them.
(C) Although it rained, the harvest was poor.
(D) The farmer who owns the land is rich.
- Q.31.** Identify the passive voice of: “The supervisor checked the tapping records.”
- (A) The tapping records are checked by the supervisor.
(B) The tapping records were checked by the supervisor.
(C) The tapping records will be checked by the supervisor.
(D) The supervisor had checked the tapping records.
- Q.32.** Choose the correct meaning of the word **PERENNIAL**:
- (A) Lasting for one season
(B) Occurring every ten years
(C) Lasting for many years
(D) Occurring once
- Q.33.** Choose the correct preposition: The report was submitted ___ the deadline.
- (A) above
(B) before
(C) under
(D) over
- Q.34.** Choose the correctly punctuated sentence:
- (A) The harvest was good but, the price was low.
(B) The harvest was good, but the price was low.
(C) The harvest was good but the price was, low.
(D) The harvest was good, but, the price was low.
- Q.35.** Read the passage and answer: “Natural rubber (NR) is a product of the Hevea brasiliensis tree. Kerala accounts for over 80% of India’s rubber production. The crop requires a warm humid climate.” – Which state dominates India’s rubber production?
- (A) Tamil Nadu
(B) Karnataka
(C) Kerala
(D) Assam

- Q.36.** From the same passage, which tree is the source of natural rubber?
- (A) *Ficus elastica*
 - (B) *Hevea brasiliensis*
 - (C) *Manihot esculenta*
 - (D) *Parthenium argentatum*
- Q.37.** From the same passage, what climate does the rubber crop require?
- (A) Cold and dry
 - (B) Warm and humid
 - (C) Hot and arid
 - (D) Temperate and wet
- Q.38.** Choose the word closest in meaning to **RESILIENT**:
- (A) Fragile
 - (B) Elastic
 - (C) Rigid
 - (D) Brittle
- Q.39.** Fill in the blank with the correct form of the verb: By the time he arrived, the field inspection ___ already ___.
- (A) was / completed
 - (B) had / been completed
 - (C) has / been completed
 - (D) is / completed
- Q.40.** Choose the correct spelling:
- (A) Entomollogy
 - (B) Entomology
 - (C) Entemology
 - (D) Entomolgy

3 Quantitative Aptitude

Questions 41–60

(20 Questions)

- Q.41.** A rubber plantation yields 1,800 kg of latex in 45 days. What is the daily yield?
- (A) 35 kg
 - (B) 40 kg
 - (C) 42 kg
 - (D) 38 kg

- Q.42.** If the price of rubber increases by 20% and then decreases by 20%, what is the net percentage change?
- (A) 0%
 - (B) 4% decrease
 - (C) 4% increase
 - (D) 2% decrease
- Q.43.** A field officer travels 240 km in 4 hours by car. If he increases his speed by 20%, how long will he take to cover the same distance?
- (A) $3\frac{1}{2}$ hours
 - (B) 3 hours 20 minutes
 - (C) $3\frac{1}{3}$ hours
 - (D) $2\frac{2}{3}$ hours
- Q.44.** Simple interest on Rs. 8,000 at 5% per annum for 3 years is:
- (A) Rs. 1,200
 - (B) Rs. 1,500
 - (C) Rs. 1,100
 - (D) Rs. 1,300
- Q.45.** A plantation has a rectangular shape of length 250 m and breadth 180 m. Find its area in hectares. (1 hectare = 10,000 m²)
- (A) 4 ha
 - (B) 4.5 ha
 - (C) 4.2 ha
 - (D) 5 ha
- Q.46.** Two partners invest Rs. 24,000 and Rs. 36,000 in a plantation business. After one year, the total profit is Rs. 30,000. What is the share of the partner who invested Rs. 24,000?
- (A) Rs. 14,000
 - (B) Rs. 12,000
 - (C) Rs. 10,000
 - (D) Rs. 16,000
- Q.47.** A tank is $\frac{3}{4}$ full. If 450 litres is removed, it becomes $\frac{1}{4}$ full. What is the capacity of the tank?
- (A) 900 litres
 - (B) 600 litres
 - (C) 800 litres
 - (D) 1000 litres

- Q.48.** Find the average of the first 10 odd natural numbers.
- (A) 9
 (B) 10
 (C) 11
 (D) 8
- Q.49.** The ratio of latex produced in Kerala to that in Karnataka is 7 : 2. If total production is 4,500 tonnes, how much does Kerala produce?
- (A) 2,500 tonnes
 (B) 3,000 tonnes
 (C) 3,500 tonnes
 (D) 2,000 tonnes
- Q.50.** A rubber tapper can tap 80 trees per day. In how many days will a team of 5 tappers tap 2,000 trees?
- (A) 4 days
 (B) 5 days
 (C) 6 days
 (D) 3 days
- Q.51.** Find the compound interest on Rs. 10,000 at 10% per annum for 2 years, compounded annually.
- (A) Rs. 2,000
 (B) Rs. 2,100
 (C) Rs. 1,900
 (D) Rs. 2,200
- Q.52.** Data Interpretation: The table shows rubber production (in 000 tonnes) in five states.

State	Production (000 t)
Kerala	680
Karnataka	85
Tamil Nadu	35
Assam	25
Tripura	20
Total	845

What percentage of total production does Kerala contribute? (Approx.)

- (A) 75%
 (B) 80%
 (C) 85%
 (D) 90%

- Q.53.** Using the table above, what is the combined production of Karnataka and Tamil Nadu as a percentage of Kerala's production? (Approx.)
- (A) 15%
 - (B) 18%
 - (C) 12%
 - (D) 20%
- Q.54.** If $x + y = 20$ and $x - y = 4$, find the value of xy .
- (A) 96
 - (B) 84
 - (C) 104
 - (D) 100
- Q.55.** A rubber tree produces 200 grams of dry rubber per tapping. How many trees must be tapped to get 1 tonne of dry rubber? (1 tonne = 1,000 kg)
- (A) 5,000
 - (B) 4,000
 - (C) 3,000
 - (D) 6,000
- Q.56.** The perimeter of a square plantation is 2 km. Find its area in sq. km.
- (A) 0.0625 sq. km
 - (B) 0.25 sq. km
 - (C) 0.5 sq. km
 - (D) 1 sq. km
- Q.57.** In a field, 3 workers can weed 1 hectare in 6 days. How many days will 6 workers take to weed 4 hectares?
- (A) 8 days
 - (B) 10 days
 - (C) 12 days
 - (D) 6 days
- Q.58.** A 15% discount on rubber is offered. If the discounted price is Rs. 3,400, find the original price.
- (A) Rs. 4,000
 - (B) Rs. 3,800
 - (C) Rs. 4,200
 - (D) Rs. 3,600
- Q.59.** Find the median of the data: 12, 18, 7, 24, 15, 9, 21
- (A) 15

- (B) 18
 - (C) 12
 - (D) 9
- Q.60.** A train 200 m long crosses a platform 300 m long at 90 km/h. Find the time taken to cross.
- (A) 18 seconds
 - (B) 20 seconds
 - (C) 22 seconds
 - (D) 16 seconds

4 Professional Knowledge

Questions 61–100

(40 Questions)

4.1 Rubber Cultivation and Plantation Management

- Q.61.** Which species of rubber tree is commercially cultivated in India?
- (A) *Ficus elastica*
 - (B) *Hevea brasiliensis*
 - (C) *Manihot utilissima*
 - (D) *Parthenium argentatum*
- Q.62.** What is the ideal annual rainfall for rubber cultivation in India?
- (A) 500–800 mm
 - (B) 1,200–2,000 mm
 - (C) 2,500–4,000 mm
 - (D) 800–1,200 mm
- Q.63.** Rubber is a latex-producing plant; the latex is found in which part of the tree?
- (A) Xylem vessels
 - (B) Laticiferous vessels in the bark
 - (C) Phloem tubes
 - (D) Cortex cells
- Q.64.** What is the botanical family to which *Hevea brasiliensis* belongs?
- (A) Moraceae
 - (B) Euphorbiaceae
 - (C) Fabaceae
 - (D) Apocynaceae

Q.65. The process of cutting the bark of rubber tree to harvest latex is called:

- (A) Budding
- (B) Tapping
- (C) Grafting
- (D) Pruning

Q.66. Which clonal variety of rubber is most widely planted in India?

- (A) RR II 105
- (B) GT 1
- (C) RR II 430
- (D) PB 260

Q.67. Yield stimulation in rubber tapping is done using:

- (A) Auxin (IAA) spray
- (B) Ethylene (Ethephon) application
- (C) Gibberellin drench
- (D) Cytokinin injection

Q.68. The standard tapping cut angle recommended for rubber trees is:

- (A) 20°
- (B) 30°
- (C) 45°
- (D) 60°

Q.69. Which soil type is considered most suitable for rubber cultivation?

- (A) Black cotton soil (Vertisol)
- (B) Laterite soil with good drainage
- (C) Alluvial soil
- (D) Sandy desert soil

Q.70. The ideal temperature range for rubber cultivation is:

- (A) 10–20°C
- (B) 20–35°C
- (C) 35–45°C
- (D) Below 10°C

Q.71. Which state has the highest rubber production in India?

- (A) Karnataka
- (B) Tamil Nadu
- (C) Kerala
- (D) Assam

- Q.72.** The Rubber Research Institute of India (RRII) is located at:
- (A) Kottayam
 - (B) Kochi
 - (C) Kozhikode
 - (D) Thiruvananthapuram
- Q.73.** Rubber Board of India functions under which Ministry?
- (A) Ministry of Agriculture
 - (B) Ministry of Commerce and Industry
 - (C) Ministry of Finance
 - (D) Ministry of Rural Development
- Q.74.** Budgrafting of rubber is done to:
- (A) Improve root system only
 - (B) Propagate superior clonal material vegetatively
 - (C) Increase flowering
 - (D) Improve bark thickness
- Q.75.** The recommended spacing for rubber plantation in traditional areas of Kerala is:
- (A) 4×4 m
 - (B) 6×6 m
 - (C) 5×5 m (approximately 400 trees/ha)
 - (D) 3×3 m

4.2 Agronomy and Soil Science

- Q.76.** The optimum soil pH for rubber cultivation is in the range of:
- (A) 4.0–5.0
 - (B) 4.5–6.0
 - (C) 6.5–7.5
 - (D) 7.5–8.5
- Q.77.** Which macro-nutrient is primarily responsible for nitrogen fixation in soil?
- (A) Phosphorus
 - (B) Potassium
 - (C) Nitrogen (via rhizobium)
 - (D) Sulphur
- Q.78.** Cover crops grown in rubber plantations are used mainly for:
- (A) Weed suppression and soil conservation
 - (B) Increasing latex yield directly

- (C) Repelling insects
 - (D) Improving bark quality
- Q.79.** Which of the following is a major fungal disease of rubber?
- (A) South American Leaf Blight (SALB)
 - (B) Powdery mildew (*Oidium heveae*)
 - (C) Both A and B
 - (D) Neither A nor B
- Q.80.** The Jabong (*Corypha umbraculifera*) cover crop in rubber is being replaced by:
- (A) *Mucuna bracteata*
 - (B) *Pueraria phaseoloides*
 - (C) *Centrosema pubescens*
 - (D) Both B and C
- Q.81.** Organic matter content in rubber plantation soils is important because it:
- (A) Reduces water holding capacity
 - (B) Improves soil structure and nutrient availability
 - (C) Increases soil pH above 8
 - (D) Has no effect on yield
- Q.82.** The primary nutrient removed from soil in highest quantity by rubber trees is:
- (A) Calcium
 - (B) Nitrogen
 - (C) Phosphorus
 - (D) Iron
- Q.83.** Green manuring in rubber plantations is the practice of:
- (A) Applying factory-made green fertilizers
 - (B) Growing and incorporating leguminous plants to improve soil fertility
 - (C) Painting bark green to reflect sunlight
 - (D) Using green mulch from coconut fronds

4.3 Plant Physiology, Genetics, and Pathology

- Q.84.** Latex in rubber is chemically a colloidal dispersion of:
- (A) cis-1,4-polyisoprene
 - (B) trans-1,4-polyisoprene
 - (C) Polystyrene
 - (D) Polyvinyl chloride
- Q.85.** Bark consumption per tapping is reduced by using which tapping system?

- (A) Daily full-spiral tapping (S/1 d/1)
 - (B) Low-frequency tapping with stimulation (S/3 d/3 ET 2.5%)
 - (C) Half-spiral daily tapping (S/2 d/1)
 - (D) Quarter-spiral daily tapping (S/4 d/1)
- Q.86.** Brown Bast disease in rubber is characterized by:
- (A) Drying of latex tubes and cessation of flow
 - (B) Yellowing of leaves only
 - (C) Excessive latex flow
 - (D) Root rot
- Q.87.** The major chromosomal number in *Hevea brasiliensis* is:
- (A) $2n = 18$
 - (B) $2n = 36$
 - (C) $2n = 72$
 - (D) $2n = 24$
- Q.88.** Wintering in rubber refers to:
- (A) Cold-induced dormancy
 - (B) Annual leaf shedding and renewal in February–March in India
 - (C) Water stress during dry months
 - (D) Tapping halt due to rain
- Q.89.** The fungicide recommended for controlling Phytophthora leaf fall in rubber is:
- (A) Metalaxyl + Mancozeb
 - (B) Copper oxychloride (Bordeaux mixture)
 - (C) Both A and B depending on severity
 - (D) Carbendazim only
- Q.90.** Heritability in the broad sense measures:
- (A) Environmental variance only
 - (B) Proportion of phenotypic variance due to total genotypic variance
 - (C) Proportion of phenotypic variance due to additive variance only
 - (D) None of the above
- Q.91.** Tapping panel dryness (TPD) in rubber is associated with deficiency of:
- (A) Nitrogen
 - (B) Phosphorus
 - (C) Ethylene over-stimulation causing oxidative stress
 - (D) Iron
- Q.92.** Rubber seeds are dispersed by:

- (A) Wind
 - (B) Animals
 - (C) Ballistic dispersal (explosive dehiscence of seed pods)
 - (D) Water
- Q.93.** The Rubber Act governing the Rubber Board was enacted in:
- (A) 1947
 - (B) 1956
 - (C) 1960
 - (D) 1947 as Rubber (Production and Marketing) Act
- Q.94.** The recommended fertilizer dose for immature rubber (Year 1) per tree per year is approximately:
- (A) 10 g N, 5 g P, 10 g K
 - (B) 55 g N, 25 g P, 40 g K
 - (C) 100 g N, 80 g P, 100 g K
 - (D) 200 g N, 150 g P, 200 g K
- Q.95.** Which insect pest is the most serious threat to rubber in North-East India?
- (A) Mealy bug (*Ferrisia virgata*)
 - (B) Termites (white ants)
 - (C) Scale insects
 - (D) Bark caterpillar (*Indarbela quadrinotata*)
- Q.96.** The natural coagulation of rubber latex is prevented by adding:
- (A) Ammonia
 - (B) Formic acid
 - (C) Acetic acid
 - (D) Sulphuric acid
- Q.97.** Somatic hybridization in rubber breeding is done through:
- (A) Cross-pollination
 - (B) Protoplast fusion
 - (C) Embryo rescue
 - (D) Tissue culture only
- Q.98.** The Central Sector Scheme for rubber development in non-traditional regions of India is called:
- (A) National Rubber Policy 2019
 - (B) Rubber Plantation Development Scheme (RPDS)
 - (C) PM-KISAN for rubber

(D) Rashtriya Krishi Vikas Yojana (RKVY) rubber component

Q.99. The main active component responsible for vulcanization of natural rubber is:

- (A) Oxygen
- (B) Sulphur
- (C) Nitrogen
- (D) Carbon

Q.100. Which country is the world's largest producer of natural rubber?

- (A) Indonesia
- (B) India
- (C) China
- (D) Thailand

Answer Key

Q. No.	Answer	Brief Answer
1	C	Displacement: 3 km East from start
2	A	Each letter shifted +1; G-H, U-V, A-B, V-W, A-B
3	C	21 is not prime; others are prime numbers
4	C	A is mother of B (C's sibling), C is D's father; A is grandmother
5	B	Pattern: $n(n+1)$; next is $6 \times 7 = 42$
6	D	Definite conclusion cannot be drawn from partial overlap
7	B	Seed grows into Plant; Egg hatches into Bird
8	B	Hour hand at 130 degrees, minute hand at 120 degrees; difference = 10 degrees
9	C	4 lines through point form 8 triangular regions
10	C	Mother's only son = Suresh; son of Suresh = Suresh's son
11	C	Mirror image reverses each letter left-to-right
12	B	$246 =$ good plantation area; 2 = good; 4 = plantation; 6 = area
13	A	Logical botanical order: Seed, Bud, Seedling, Sapling, Mature tree
14	C	Right triangle + rectangle combined forms a trapezium
15	B	Position from right = $40 - 12 + 1 = 29$ th
16	A	Pattern shifts by 1 letter each time; CEG next is DFH
17	B	Pythagoras: $\sqrt{64+36} = \sqrt{100} = 10$ km
18	A	D is between B and E; left of B (in circle) is E
19	D	Cannot conclude farmers are educated from given statements
20	A	Between J(10) and T(20), middle is O(15); N is 14, equidistant
21	B	Arid means very dry
22	B	Antonym of Abundant is Scarce
23	B	Singular subject rubber plantation needs was
24	C	Each of requires singular verb; have is incorrect, should be has
25	C	Agronomy is the correct spelling
26	B	Beat around the bush means avoiding the main point
27	B	Correct word order for active sentence
28	B	Pedologist studies soil and its properties
29	C	Superlative best requires definite article the
30	B	Compound sentence joins two independent clauses with and

Continued on next page...

Answer Key – continued from previous page

Q. No.	Answer	Brief Answer
31	B	Checked (past simple) converts to were checked (past passive)
32	C	Perennial means lasting for many years
33	B	Report submitted before the deadline
34	B	Correct punctuation uses comma before coordinating conjunction but
35	C	Passage states Kerala accounts for over 80 percent of production
36	B	Passage states Hevea brasiliensis is the rubber tree
37	B	Passage states warm humid climate is required
38	B	Resilient means able to spring back; synonym is elastic
39	B	Past perfect passive: had been completed
40	B	Entomology is the correct spelling
41	B	1800 divided by 45 = 40 kg per day
42	B	Net change = $1.2 \times 0.8 = 0.96$; 4 percent decrease
43	C	New speed 60 kmph; time = $240/60 = 4/1.2 = 3.33$ hours
44	A	SI = $8000 \times 5/100 \times 3 = 1200$ rupees
45	B	$250 \times 180 = 45000$ sq m = 4.5 hectares
46	B	Ratio 24:36 = 2:3; share = $2/5 \times 30000 = 12000$
47	A	Full - $1/4$ full = $1/2$ full = 450 L; full = 900 litres
48	B	Average of 1,3,5...19 = $(1+19)/2 = 10$
49	C	Kerala share = $7/9 \times 4500 = 3500$ tonnes
50	B	5 tappers $\times 80 = 400$ trees/day; $2000/400 = 5$ days
51	B	CI = $10000(1.1 \text{ squared}) - 10000 = 12100 - 10000 = 2100$
52	B	$680/845 \times 100 = 80.47$ percent approx 80 percent
53	B	$(85+35)/680 \times 100 = 120/680 \times 100 = 17.6$ percent approx 18 percent
54	A	$x=12, y=8; xy = 12 \times 8 = 96$
55	A	1 tonne = 1000000 g; $1000000/200 = 5000$ trees
56	B	Side = 500 m = 0.5 km; area = 0.25 sq km
57	C	Worker-days needed = $3 \times 6 = 18$ per ha; for 4 ha = 72; with 6 workers = 12 days
58	A	Original = $3400/0.85 = 4000$ rupees
59	A	Sorted: 7,9,12,15,18,21,24; median = 15
60	B	Speed = 25 m/s; distance = 500 m; time = $500/25 = 20$ seconds
61	B	Hevea brasiliensis is the commercial rubber species
62	B	Rubber needs 1200 to 2000 mm annual rainfall

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Answer Key – continued from previous page

Q. No.	Answer	Brief Answer
63	B	Latex is in laticiferous vessels in the bark
64	B	Hevea belongs to Euphorbiaceae family
65	B	Cutting bark to collect latex is called tapping
66	A	RRII 105 is the most widely planted clone in India
67	B	Ethephon (ethylene-releasing compound) is used for yield stimulation
68	B	Standard tapping cut is at 30 degrees to horizontal
69	B	Laterite soil with good drainage is best for rubber
70	B	Rubber grows best between 20 and 35 degrees Celsius
71	C	Kerala contributes over 80 percent of India rubber production
72	A	RRII is headquartered in Kottayam, Kerala
73	B	Rubber Board functions under Ministry of Commerce and Industry
74	B	Budgrafting propagates superior clonal material vegetatively
75	C	5 m x 5 m spacing gives about 400 trees per hectare
76	B	Optimal soil pH for rubber is 4.5 to 6.0
77	C	Rhizobium bacteria fix nitrogen in root nodules
78	A	Cover crops suppress weeds and conserve soil
79	C	Both SALB and Oidium heveae are major fungal diseases
80	D	Pueraria and Centrosema are the legume covers replacing Jabong
81	B	Organic matter improves soil structure and nutrient availability
82	B	Nitrogen is the primary nutrient taken up in largest quantity
83	B	Green manuring grows legumes and incorporates them into soil
84	A	Latex is cis-1,4-polyisoprene colloidal dispersion
85	B	Low-frequency tapping with Ethephon reduces bark consumption
86	A	Brown bast causes drying of latex vessels and flow cessation
87	B	Hevea brasiliensis has $2n = 36$ chromosomes
88	B	Wintering is annual leaf shedding and renewal in Feb-March
89	C	Both Metalaxyl and copper oxychloride used for Phytophthora
90	B	Broad-sense heritability = total genotypic variance / phenotypic variance

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Answer Key – continued from previous page

Q. No.	Answer	Brief Answer
91	C	TPD is linked to ethylene over-stimulation and oxidative stress
92	C	Rubber seeds are dispersed by ballistic explosive dehiscence
93	B	The Rubber Act was enacted in 1956
94	B	Recommended NPK for immature rubber Year 1 is 55:25:40 g
95	D	Bark caterpillar <i>Indarbela quadrinotata</i> is serious in North-East
96	A	Ammonia is added to prevent natural coagulation of latex
97	B	Somatic hybridization is done through protoplast fusion
98	B	Rubber Plantation Development Scheme (RPDS) is the central scheme
99	B	Sulphur forms cross-links between polymer chains in vulcanization
100	D	Thailand is the world's largest producer of natural rubber
