PREVIOUS YEAR PAPER

SSC MTS 2024 — 29 October 2024, Shift 3

SSC MTS & Havaldar · 29 October 2024 · 4:00 PM - 5:30 PM

72 of the paper's 88 questions · marks per question not printed on the response sheet

Left out of the original paper: 16 (any question that needs a figure or formatting we cannot show, has no answer in the response sheet, or could not be checked against a second copy of the paper).

Questions from the Staff Selection Commission's paper of 29 October 2024, 4:00 PM - 5:30 PM. Each question is followed by its answer, and the answer key is repeated on the last page.

Take it as a timed practice test: exambharo.com/ssc-mts/previous-year-papers/ssc-mts-2024-29-oct-shift-3/

Numerical and Mathematical Ability

1. The radii of the bases of two cylinders and their heights are in the ratio 4 : 3 and 9 : 8, respectively. Find the ratio of their curved surface areas.

(a) 4 : 5
(b) 2 : 3
(c) 5 : 6
(d) 3 : 2

Answer: (d)

2. What sum (in ₹) will earn a simple interest of ₹240 in 1 years at 16% per year rate of interest?

(a) 500
(b) 750
(c) 800
(d) 375

Answer: (d)

3. By selling an article for ₹20, a dealer makes a profit of 10%. By how much should he increase his selling price (in ₹, rounded off to two decimal place) so as to make a profit of 30%?

(a) 3.64
(b) 5.64
(c) 6.64
(d) 4.64

Answer: (a)

5. Find the simple interest (in ₹) on ₹2500 as a sum borrowed at 4% per year rate of interest for 2 years.

(a) 160
(b) 200
(c) 140
(d) 240

Answer: (b)

6. A grocer wishes to sell a mixture of two varieties of rice worth ₹48 per kg. In what ratio must he mix the rice to reach this selling price when the cost of one variety of rice is ₹42 per kg and the other is ₹60 per kg?

(a) 3 : 2

(b) 2 : 1

(c) 2 : 3

(d) 1 : 2

Answer: (b)

11. Arjun mixed three different oils to form a mixture costing ₹25 per litre. The ratio of the three varieties of oil was 1 : 5 : 2. What is the cost (per litre in ₹) of the second variety if the cost per litre of the first and third varieties was ₹20 and ₹30, respectively?

(a) 26

(b) 28

(c) 24

(d) 25

Answer: (c)

14. In the first 24 matches, a cricket player averages 60 runs. The overall average for all 32 matches is 80. Determine the average for the last 8 matches.

(a) 140

(b) 130

(c) 120

(d) 110

Answer: (a)

15. Two athletes X and Y are jogging on a circular path whose circumference is 500 m. Athlete X jogs at a speed of 18 km/h and Y jog at 9 km/h, jogging in opposite directions. The time at which they will meet for the first time is:

(a) 200 s

(b) 27.77 s

(c) 50 s

(d) 66.66 s

Answer: (d)

16. In a circular race of 1 km, two persons X and Y start with the speed of 9 km/h and 18 km/h, respectively, at the same time from the same point. When will they meet for the first time at the starting point when running in the same direction?

(a) 360 sec

(b) 240 sec

(c) 180 sec

(d) 400 sec

Answer: (d)

17. In a math exam, two students scored 95, six students scored 90, three students scored 80, and one student scored 50. What was the average score of the class?

(a) 96.25
(b) 78.75
(c) 82
(d) 85

Answer: (d)

19. The diameter of a hollow hemisphere is 30 cm. Water is filled in it up to its brim. When spherical lead shots each of radius 0.75 cm are dropped into the hemisphere, two-fifth of the water flows out. How many lead shots were dropped into the hemisphere?

(a) 2250
(b) 1380
(c) 1575
(d) 1600

Answer: (d)

Reasoning Ability and Problem Solving

1. In a certain code language, ‘i am infinite’ is written as ‘la ma ra’ and ‘universe is infinite’ is written as ‘ra ba ta’. How is ‘infinite’ written in the given code language?

(a) ma
(b) ba
(c) ra
(d) la

Answer: (c)

2. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements: Some mugs are cups. No paper is a mug.

Conclusions:
(I) Some cups are mugs.
(II) No paper is a cup.

(a) Only conclusion (I) follows
(b) Only conclusion (II) follows
(c) Both conclusions (I) and (II) follow
(d) Neither conclusion (I) nor (II) follows

Answer: (a)

3. What should come in place of the question mark (?) in the given series?

46, 44, 40, 38, 34, 32, ?

(a) 28
(b) 26
(c) 24
(d) 30

Answer: (a)

5. In a code language, 'ZHBN' is coded as ‘BEFI’ and 'LFWJ' is coded as ‘NCAE’. How will 'HVDK' be coded in that language?

(a) JSHF
(b) JTHD
(c) KTJD
(d) KSIF

Answer: (a)

6. Which of the following interchanges of signs would make the given equation correct? 25 − 63 ÷ 3 + 7 × 5 = 11

(a) + and −
(b) − and ×
(c) + and ÷
(d) ÷ and −

Answer: (a)

7. VOAH is related to YPBK in a certain way based on the English alphabetical order. In the same way, RGDS is related to UHEV. To which of the following is IBXC related, following the same logic?

(a) KCZD
(b) MDYG
(c) LCYF
(d) NEZF

Answer: (c)

9. A, B, C, D, E, F and G are sitting around a circular table facing the centre (but not necessarily in the same order) . Only C sits between G and E. E sits third to the left of F. D sits to the immediate left of F. B is not an immediate neighbour of E. Who sits second to the right of A?

(a) D
(b) F
(c) B
(d) C

Answer: (b)

10. In a code language, 'JSCQ' is coded as ‘MNJH’ and 'BYTE' is coded as ‘ETAV’. How will 'SEWX' be coded in that language?

(a) VZDO
(b) WZEO
(c) WXEM
(d) VXDM

Answer: (a)

11. TVRM is related to VUPN in a certain way based on the English alphabetical order. In the same way, ROEP is related to TNCQ. To which of the following is KOCB related, following the same logic?

(a) NMAC
(b) MNBC
(c) NMBC
(d) MNAC

Answer: (d)

12. Six employees Dhiraj, Roshan, Satish, Pawan, Tarun and Niraj are sitting around a circular table, facing the centre (but not necessarily in the same order). Satish is sitting to the immediate right of Pawan. Niraj is sitting second to the left of Satish. Tarun is sitting to the immediate left of Niraj. Only Tarun is sitting between Niraj and Roshan. Who is sitting between Satish and Roshan?

(a) Niraj
(b) Dhiraj
(c) Pawan
(d) Tarun

Answer: (b)

15. What should come in place of the question mark (?) in the given series based on the English alphabetical order ?

DEF, JKL, PQR, VWX, ?

(a) BCD
(b) YZB
(c) UWZ
(d) ZBE

Answer: (a)

16. 10 is related to 6 following a certain logic. Following the same logic, 14 is related to 8. To which of the following is 24 related following the same logic?(NOTE: Operations should be performed on the whole numbers, without breaking down the numbersinto its constituent digits. E.g. 13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1and 3 is not allowed)

(a) 15
(b) 11
(c) 16
(d) 13

Answer: (d)

18. What will come in place of the question mark (?) in the following equation if '+' and '–' are interchanged and '×' and '÷' are interchanged?

24 × 12 – 5 ÷ 2 + 7 = ?

(a) 5
(b) 7
(c) 3
(d) 8

Answer: (a)

19. Select the set in which the numbers are related in the same way as are the numbers of the given sets. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/ multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

(38, 31, 47) (42, 35, 51)

(a) (29, 21, 39)
(b) (54, 47, 63)
(c) (46, 40, 49)
(d) (33, 24, 30)

Answer: (b)

20. In a certain code language, 'BUSY' is coded as '[illegible]2' and 'SIDE' is coded as '7536'.What is the code for 'S' in the given code language?

(a) 4
(b) 5
(c) 6
(d) 7

Answer: (c)

General Awareness

1. In which of the following cities of India was the first successful textile mill established?

(a) Ludhiana
(b) Mumbai
(c) Chennai
(d) Kolkata

Answer: (b)

2. Which house is considered as lower house in State Legislature?

(a) Lok Sabha
(b) Vidhan Parishad
(c) Vidhan Sabha
(d) Rajya Sabha

Answer: (c)

3. Which of the following Acts was provided for the establishment of a federal court in India?

(a) The Indian Councils Act of 1909
(b) The Government of India Act of 1935
(c) The Regulating Act of 1773
(d) The Government of India Act of 1919

Answer: (b)

4. Which ruler succeeded Chandragupta Maurya in 297 BCE?

(a) Kumaragupta
(b) Kanishka
(c) Ashoka
(d) Bindusara

Answer: (d)

5. Teejan Bai is associated with which of the following dances?

(a) Jhumar
(b) Garba
(c) Bagurumba
(d) Pandvani

Answer: (d)

6. Which of the following is NOT true regarding the S an Singh Committee?

(a) The Swaran Singh Committee was set up in 1 .
(b) The committee was established during Indir andhi's Government
(c) The 42 nd Constitutional Amendme based on its recommendations.
(d) It suggested nine items as duties of the citizens.

Answer: (d)

7. Among the following Para athletes, which athlete is associated with the High Jump event?

(a) Ajeet Singh Yadav
(b) Deepa Malik
(c) Avani Lekhara
(d) Mariyappan Thangavelu

Answer: (d)

9. According to Census of India 2011, in which of the following Union Territories was the sex ratio recorded at 1037 females per 1000 males?

(a) Lakshadweep
(b) Puducherry
(c) Andaman and Nicobar Islands
(d) Chandigarh

Answer: (b)

10. The Thermohaline Circulation directly influences which of the following crucial environmental factors all over the world?

(a) The landforms
(b) Natural resources
(c) Pollution in the air
(d) The climate

Answer: (d)

11. Who among the following received the Sangeet Natak Akademi Amrit Award 2022 for Kuchipudi dance?

(a) Smita Rajeshbhai Shastri
(b) Makhan Chandra Borah
(c) Charan Girdhar Chand
(d) Kumkum Lal

Answer: (a)

12. 0.25 g of an organic compound gave 0.13 g of water after complete combustion. The percentage composition of hydrogen is _____.

(a) 4.58%
(b) 52.00%
(c) 11.11%
(d) 5.78%

Answer: (d)

13. Chip, Condor, Duff and Driver are some [illegible] the [illegible]ns used in _____.

(a) Golf
(b) Chess
(c) Horse Polo
(d) Swimming

Answer: (a)

15. Jon Beel mela is held every year in which of the following states?

(a) Haryana
(b) Telangana
(c) Assam
(d) Arunachal Pradesh

Answer: (c)

16. According to the Census of India 2011, which state has the highest sex ratio?

(a) Karnataka
(b) Kerala
(c) Andhra Pradesh
(d) Tamil Nadu

Answer: (b)

17. The Union Territory of Puducherry is located in which of the following river basins?

(a) Yamuna
(b) Karishna
(c) Mahanadi
(d) Kaveri

Answer: (d)

18. Which of the following is NOT included in the national income?

(a) Income received by a person as a donation
(b) Income received by a person for the use of his capital
(c) Income received by a household for the use of their land
(d) Income received by a household for the use of their entrepreneurial skill

Answer: (a)

19. Who among the following was the Sultan of Delhi when Bahmani kingdom was founded in 1347 CE?

(a) Ghiyasuddin Tughlaq
(b) Mubarak Shah Khalji
(c) Muhammad bin Tughlaq
(d) Bahlul Lodi

Answer: (c)

20. Name the social reformer of Bengal who played a crucial role in the enactment of the Hindu Widows' Remarriage Act 1856.

(a) Ishwarchandra Vidyasagar
(b) Satyendra Nath Bose
(c) Swami Vivekananda
(d) Rabindranath Tagore

Answer: (a)

21. Several biological processes are catalysed by enzymes. Digestive enzymes are present in which part of the cell?

(a) Lysosomes
(b) Mitochondria
(c) Golgi complex
(d) Ribosome

Answer: (a)

22. M Balamuralikrishna was awarded Padma Vibhushan in 1991 for which of the following fields?

(a) Hindustani music
(b) Folk music
(c) Jazz music
(d) Carnatic music

Answer: (d)

23. Who built an elegant two-storey ‘ship palace’ between two reservoirs named Jahaaz Mahal?

(a) Sultan Muhammad Bin Tughlaq

(b) Sultan Ghiyasuddin Tughlaq

(c) Sultan Alaud-Din Khalji

(d) Sultan Ghiyasuddin Khilji

Answer: (d)

24. What is the name of the process of organic matter being broken down into simpler compounds by decomposers?

(a) Photosynthesis

(b) Respiration

(c) Decomposition

(d) Fermentation

Answer: (c)

25. In 2023, the Government of India proposed 'Amrit Dharohar Scheme' to be implemented over the next _____ to encourage optimal use of wetlands and enhance bio-diversity, carbon stock, eco-tourism opportunities and income generation for local communities.

(a) Five Years

(b) Seven Years

(c) Two Years

(d) Three Years

Answer: (d)

English Language and Comprehe

1. Select the most appropriate option that can substitute the underlined words in the given sentence.

Raman is as worse as Raju in solving mathematical problems.

(a) best

(b) worst

(c) worsen

(d) bad

Answer: (d)

2. In the following sentence the underlined part contains an error. Alternatives to the underlined part are given as options. Select the correct alternative. The house seemed much far than she expected.

(a) farthest

(b) more far

(c) farer

(d) farther

Answer: (d)

3. Select the most appropriate option that can substitute the underlined segment in the given sentence.

This is the cheap saree in my collection.

(a) more cheap
(b) most cheapest
(c) cheapest
(d) cheaper

Answer: (c)

4. Select the most appropriate option to fill in the blank. The arrangements of the little boy's birthday party were _____ nice. We could not help but appreciate it.

(a) little
(b) many
(c) extremely
(d) few

Answer: (c)

5. Select the appropriate option that can substitute the underlined word in the following sentence to make it grammatically correct.

This novel is more interesting of all in the library.

(a) the more interesting
(b) interesting
(c) most interesting
(d) the most interesting

Answer: (d)

6. Identify the ANTONYM of the word in brackets. The athlete's (languid) performance disappointed the fans as well as coaches.

(a) Vigorous
(b) Listless
(c) Relaxed
(d) Lethargic

Answer: (a)

7. Rectify the sentence by selecting the correct spelling from the options. Despite his busy scheuduel, Rohit managed to complete the assignment on time.

(a) scedhule
(b) schedule
(c) schedeule
(d) scheudul

Answer: (b)

8. Select the option that can be used as one-word substitute for the given group of words

A policy that separates people on the basis of race

(a) Apostle
(b) Apartheid
(c) Apiary
(d) Apostasy

Answer: (b)

9. Select the option that can be used as a one-word substitute for the given group of words.

The method and practice of teaching

(a) Objective
(b) Learning
(c) Pedagogy
(d) Strategy

Answer: (c)

10. Select the INCORRECTLY spelt word.

(a) Detrimental
(b) Regimental
(c) Fundementel
(d) Transcendental

Answer: (c)

11. Select the most appropriate option that can substitute the underlined segment in the given sentence.

This is the <u>old</u> tree in the colony.

(a) elder
(b) older
(c) most old
(d) oldest

Answer: (d)

12. Select the most appropriate set of words to fill the blanks.

I was trying to _____ a pen to sign a form as my brother had been _____ Rupees 500 for breaking the traffic rules.

(a) find; find
(b) fined; fined
(c) find; fined
(d) fined; find

Answer: (c)

13. Select the most appropriate meaning of the idiom from the options given below. A square peg in a round hole

(a) a person who is criminal by nature
(b) a person who is bankrupt
(c) a person who does not fit the job
(d) a person who fits the job

Answer: (c)

14. Select the most appropriate meaning of the given phrase. Feel the pinch

(a) Give pain
(b) Experience hardship
(c) Raise quality
(d) Demand something

Answer: (b)

15. Select the word that has the same meaning (SYNONYM) as the underlined word in the given sentence.

The town, where Haruki lived, stood in <u>imminent</u> danger of tidal waves.

(a) eminent
(b) immaculate
(c) impending
(d) prominent

Answer: (c)

17. Select the most appropriate ANTONYM of the underlined word in the given sentence.

Abhay's <u>humility</u> towards the poor and needy people of his locality is really admirable.

(a) Sincerity
(b) Modesty
(c) Arrogance
(d) Amicability

Answer: (c)

18. Correct the underlined part of the sentence.

They have a <u>few</u> juice in the jar.

(a) lesser
(b) fewer
(c) least
(d) little

Answer: (d)

20. Select the most appropriate synonym of the given word. Ephemeral

(a) Fleeting
(b) persistent
(c) Permanent
(d) Durable

Answer: (a)

Passage — for questions 21–25

> In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.
>
> There lived in a town in Russia a bootmaker named Martin. He lived in a small room, half sunk ____1____ the level of the street, with one window which _____2____ on the street. He had lived in the same room for many years and knew many people. There was ____3____ a pair of boots in the town and in the country for many miles ____4____ that had not once or twice passed ____5____ his hands.

21. Select the most appropriate option to fill in blank number 1.

(a) beyond
(b) amidst
(c) inside
(d) below

Answer: (d)

22. Select the most appropriate option to fill in blank number 2.

(a) touched
(b) opened
(c) arrived
(d) aimed

Answer: (b)

23. Select the most appropriate option to fill in blank number 3.

(a) besides
(b) hardly
(c) always
(d) now

Answer: (b)

24. Select the most appropriate option to fill in blank number 4.

(a) round
(b) below
(c) above
(d) around

Answer: (d)

25. Select the most appropriate option to fill in blank number 5.

(a) off

(b) in

(c) at

(d) through

Answer: (d)

Answer key

Answer key as marked in the Staff Selection Commission's response sheet. "—" means the sheet did not show it clearly.

Numerical and Mathematical Ability

1	**(d)**	2	**(d)**	3	**(a)**	5	**(b)**	6	**(b)**	11	**(c)**
14	**(a)**	15	**(d)**	16	**(d)**	17	**(d)**	19	**(d)**		

Reasoning Ability and Problem Solving

1	**(c)**	2	**(a)**	3	**(a)**	5	**(a)**	6	**(a)**	7	**(c)**
9	**(b)**	10	**(a)**	11	**(d)**	12	**(b)**	15	**(a)**	16	**(d)**
18	**(a)**	19	**(b)**	20	**(c)**						

General Awareness

1	**(b)**	2	**(c)**	3	**(b)**	4	**(d)**	5	**(d)**	6	**(d)**
7	**(d)**	9	**(b)**	10	**(d)**	11	**(a)**	12	**(d)**	13	**(a)**
15	**(c)**	16	**(b)**	17	**(d)**	18	**(a)**	19	**(c)**	20	**(a)**
21	**(a)**	22	**(d)**	23	**(d)**	24	**(c)**	25	**(d)**		

English Language and Comprehension

1	**(d)**	2	**(d)**	3	**(c)**	4	**(c)**	5	**(d)**	6	**(a)**
7	**(b)**	8	**(b)**	9	**(c)**	10	**(c)**	11	**(d)**	12	**(c)**
13	**(c)**	14	**(b)**	15	**(c)**	17	**(c)**	18	**(d)**	20	**(a)**
21	**(d)**	22	**(b)**	23	**(b)**	24	**(d)**	25	**(d)**		