PREVIOUS YEAR PAPER

SSC MTS 2023 — 14 September 2023, Shift 3

SSC MTS & Havaldar · 14 September 2023 · 4:00 PM - 6:00 PM

82 of the paper's 90 questions · marks per question not printed on the response sheet

Left out of the original paper: 8 (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 14 September 2023, 4:00 PM - 6:00 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-2023-14-sep-shift-3/

Numerical and Mathematical Ability

1.

A square and a rhombus have the same base and the rhombus is inclined at 45°, then what will be the ratio of the area of the square to the area of the rhombus?

(a) $\sqrt{3}:1$

(b) $1:\sqrt{3}$

(c) $\sqrt{2}:\sqrt{3}$

(d) $\sqrt{2}:1$

Answer: (d)

2.

If $A:B:C=3:4:5$, then $\sqrt{A^2+B^2}:\sqrt{C^2-B^2}$ is:

(a) $3:2$

(b) $4:5$

(c) $5:3$

(d) $3:5$

Answer: (c)

3.

The ratio of two numbers is 3 : 4. If the sum of these two numbers is 70, then what is their LCM?

(a)

120

(b)

96

(c)

108

(d)

84

Answer: (a)

4.

What is the amount (in ₹) due on a sum of money ₹12,500 after one year if the compound interest is payable half-yearly at 12% per annum?

(a)

14,450

(b)

14,540

(c)

15,440

(d)

14,045

Answer: (d)

5.

A sum at simple interest of 5.5% per annum amounts to ₹7,503 in 4 years. Find the sum (in ₹).

(a)

5,350

(b)

6,150

(c)

5,980

(d)

5,520

Answer: (b)

6.

In what ratio should rice worth ₹140 per kg and ₹90 per kg be mixed so that a mixture of two qualities of rice may become worth ₹110 per kg?

(a)

$2 : 3$

(b)

$1 : 3$

(c)

$3 : 2$

(d)

$1 : 2$

Answer: (a)

7.

30 men can complete a work in 10 days. They started working and after six days, 10 more men joined them. In how many days will the total work be completed?

(a)

8

(b)

9

(c)

6

(d)

7

Answer: (b)

8.

What is the value of the following expression?

$$\frac{[27-(6\div 3)\times 4]+18}{84-8\div 4\times 8-2}$$

(a)

$\frac{37}{66}$

(b)

$\frac{33}{7}$

(c)

$\frac{29}{20}$

(d)

$\frac{8}{9}$

Answer: (a)

9.

In what ratio should coffee powder costing ₹500 per kg be mixed with coffee pc · costing ₹750 per kg so that the cost of the mixture is ₹600 per kg?

(a)

5 : 2

(b)

4 : 3

(c)

3 : 2

(d)

3 : 1

Answer: (c)

10.

The salaries of P and Q together amount to ₹6,40,000. P and Q save 60% and 40%, respectively, of their individual salaries. If their expenditures are the same, then what is the ratio of P's salary to Q's salary?

(a)

4 : 3

(b)

2 : 3

(c)

3 : 2

(d)

3 : 4

Answer: (c)

11.

A 228 m long train is running at 125 km/h. In what time (in seconds), will it pass a man running at 17 km/h in the same direction in which the train is going?

(a)

9.2

(b)

7.6

(c)

6.2

(d)

8.5

Answer: (b)

12.

Find the fourth proportional of 12^{35}, 3^{12} and 4^{12}.

(a)

12^{-23}

(b)

3^{24}

(c)

12^{-11}

(d)

4^{24}

Answer: (a)

13.

Smita is faster than Pihu. Smita and Pihu each walk 48 km. The sum of their speeds is 14 km/hr, and the sum of times taken by them is 28 hours. What is Smita's speed?

(a)

12.5 km/hr

(b)

12 km/hr

(c)

8 km/hr

(d)

10 km/hr

Answer: (b)

15.

A man goes from his house to a vegetable market at the speed of 15 km/h and walked back at the speed of 10 km/h. If the whole journey took 2 hours 30 minutes, find the distance from his house to the vegetable market (in km).

(a)

15

(b)

20

(c)

12

(d)

18

Answer: (a)

16.

A closed wooden box measures externally 10 cm long, 8 cm broad and 6 cm high. If the thickness of the wood is 0.5 cm, then the volume of wood required is:

(a)

165 cm^3

(b)

300 cm^3

(c)

230 cm^3

(d)

150 cm^3

Answer: (a)

17.

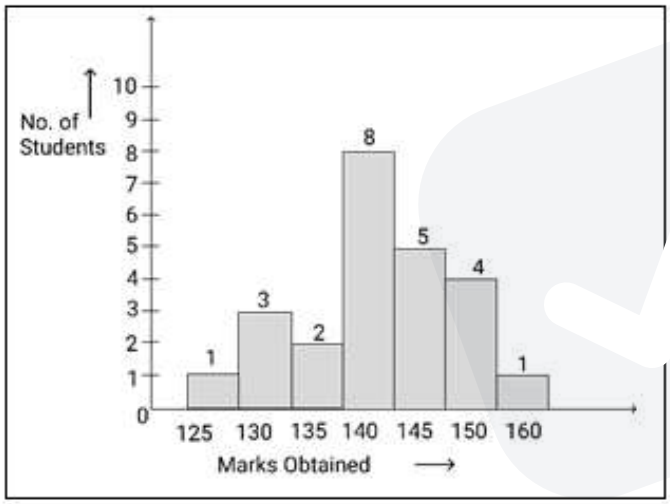
A factory owner earns 12% on the product manufactured by him. The shopkeeper earns 10% profit on the same item. If shopkeeper sells the product for ₹ 98.56, then the cost price of the product for the factory owner is ₹ ___.

(a)
88
(b)
90
(c)
84
(d)
80

Answer: (d)

18.

Study the given graph and answer the question that follows.



How many students obtained more than 125 marks?

(a)
19
(b)
17
(c)
15
(d)
23

Answer: (d)

20.

If a loss is $\frac{1}{8}$th of the selling price, then the loss percentage is:

(a)

$11\frac{1}{9}\%$

(b)

$7\frac{4}{9}\%$

(c)

$10\frac{1}{9}\%$

(d)

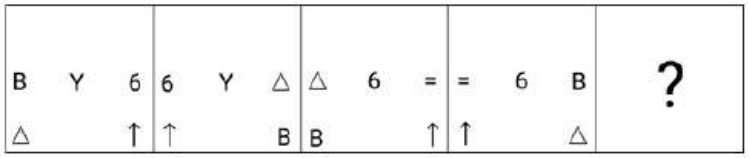
$8\frac{5}{9}\%$

Answer: (a)

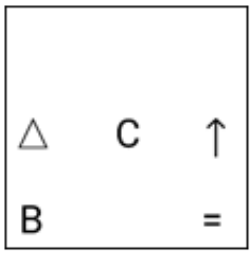
Reasoning Ability and Problem Solving

1.

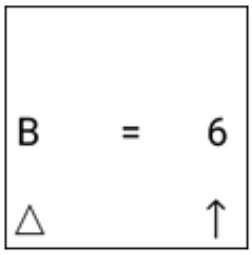
Which figure should replace the question mark (?) if the following figure series were to be continued?



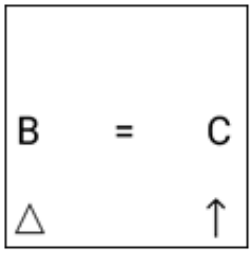
(a)



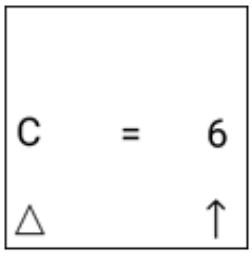
(b)



(c)



(d)



Answer: (c)

2.

Select the combination of letters that when sequentially placed in the blanks of the given series, will complete the series.

W _ X _ XXW _ X _ _ X

(a)
XWWXW

(b)
WWXWX

(c)
XWXWX

(d)
WXWXW

Answer: (c)

3.

What should come in place of '?' in the given series?

19 40 103 292 859 ?

(a)
2536

(b)
2560

(c)
2490

(d)
2508

Answer: (b)

4.

What should come in place of '?' in the given series?

18 41 110 ? 938 2801 8390

(a)
291

(b)
317

(c)
325

(d)
339

Answer: (b)

6.

What should come in place of ? in the given series based on the English alphabetical order?

BSL, EUM , HWN , KYO, ?

(a)

MBP

(b)

MBQ

(c)

NBR

(d)

NAP

Answer: (d)

7.

BNFT is related to FRJX in a certain way based on the English alphabetical order. In the same way, JOEA is related to NSIE. To which of the following is HERK related to, following the same logic?

(a)

LJVP

(b)

JHVP

(c)

LIVO

(d)

KHUN

Answer: (c)

8.

Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. You have to decide which conclusion/s logically follow/s from the given statements.

Statements: All buckets are plastic. Some plastic are spoons. All spoons are forks.

Conclusion I: Some plastic are buckets.

Conclusion II: Some plastics are forks.

(a)

Only conclusion (II) is follow.

(b)

Both conclusions (I) and (II) are follow.

(c)

Only conclusion (I) is follow.

(d)

Neither conclusion (I) nor (II) is follow.

Answer: (b)

9.

What should come in place of '?' in the given series?

20 104 524 2624 13124 ?

(a)

65282

(b)

64586

(c)

65624

(d)

63457

Answer: (c)

10.

What should come in place of ? in the given series based on the English alphabetical order?

ZHS, YER, XBQ, WYP, ?

(a)

VWO

(b)

WVN

(c)

WWN

(d)

VVO

Answer: (d)

11.

Meena, Saroj, Goldy, Priti, Poonam and Baby are sitting around a circular table facing the centre.
Meena sits to the immediate left of Saroj. Goldy sits 3rd to the right of Saroj. Priti sits 2nd to the left of Goldy. Poonam sits to the immediate right of Goldy.
Who sits 2nd to the left of Baby?

(a)

Saroj

(b)

Goldy

(c)

Priti

(d)

Poonam

Answer: (a)

13.

If 11th June 1987 is Thursday, then what will be the day of the week on 4th Dec 1989?

(a)

Tuesday

(b)

Monday

(c)

Saturday

(d)

Wednesday

Answer: (b)

14.

In a certain code language, 'how are you' is coded as 'aj ts el' and 'show them how' is coded as 'wn el pd'. How is 'how' coded in the given language?

(a)

pd

(b)

el

(c)

aj

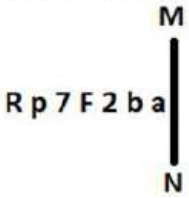
(d)

wn

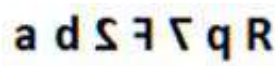
Answer: (b)

15.

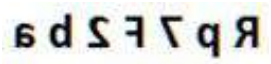
Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



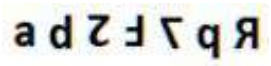
(a)



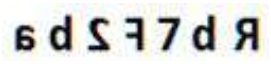
(b)



(c)



(d)



Answer: (b)

16.

What will come in the place of '?' in the following equation, if '+' and '–' are interchanged and '×' and '÷' are interchanged?

$37 - 18 \div 6 + 325 \times 25 = ?$

(a)

132

(b)

152

(c)

142

(d)

122

Answer: (a)

17.

What will come in place of '?' in the following equation, if '–' and '×' are interchanged and '+' and '÷' are interchanged?

$7 + 7 \times 3 - 4 \div 5 = ?$

(a)

-1

(b)

-6

(c)

-2

(d)

-4

Answer: (b)

18.

Read the given statement(s) 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 statement(s).

Statements: All the trucks are flies. Some scooters are flies.

Conclusions:

(I) All trucks are scooters.

(II) Some scooters are trucks.

(a)

Neither conclusion (I) nor (II) is follows.

(b)

Only conclusion (I) is follows.

(c)

Both conclusions (I) and (II) are follows.

(d)

Only conclusion (II) is follows.

Answer: (a)

19.

In a certain code language, 'FLOWERY' is coded as 'FYREWOL' and 'LINGUIST' is coded as 'LTSIUGNI'. What is the code for 'MANIFEST' in the given code language?

(a)

MTSEFINA

(b)

TESFINAM

(c)

SEFINAMT

(d)

MSTEGJMA

Answer: (a)

20.

Select the option figure in which the given figure (X) is embedded as its part (rotation is NOT allowed).



(X)

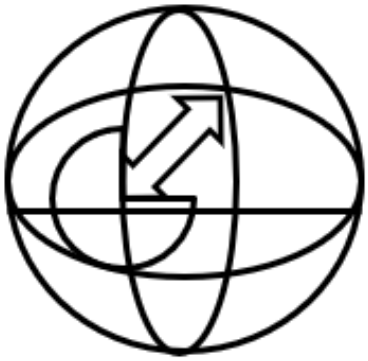
(a)



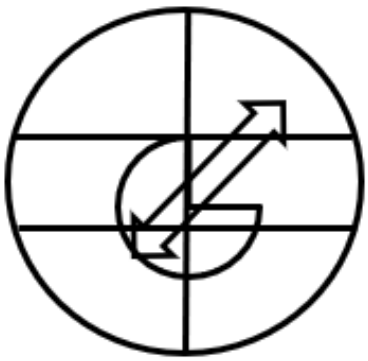
(b)



(c)



(d)



Answer: (c)

General Awareness

1. Which of the following Indian playback singers received the Bharat Ratna in 2001?

(a) KS Chithra

(b) Geeta Dutt

(c) Lata Mangeshkar

(d) Asha Bhosle

Answer: (c)

2. Which of the following cricket players wrote the autobiography ‘Playing It My Way’?

(a) Yuvraj Singh
(b) Sourav Ganguly
(c) Sachin Tendulkar
(d) Kiran More

Answer: (c)

3. In which city is the India Gate situated?

(a) Delhi
(b) Ahmedabad
(c) Lucknow
(d) Mumbai

Answer: (a)

4. Who authored the book ‘Poverty and Un-British Rule in India’ in 1901, which was highly critical of the economic impact of British Rule?

(a) Pherozeshah Mehta
(b) Dadabhai Naoroji
(c) WC Bonnerji
(d) Badruddin Tyabji

Answer: (b)

5. The efforts of Malayalam poet Vallathol Narayana [illegible]non and dancer and guru Kalyanikutty Amma brought back and gave a new life to the dan[illegible]orm _____.

(a) Bharatanatyam
(b) Kuchipudi
(c) Mohiniyattam
(d) Kathakali

Answer: (c)

6. Where was All Indian Muslim League formed in 1906?

(a) Agra
(b) Dhaka
(c) Lahore
(d) Delhi

Answer: (b)

7. Which of the following writers wrote the autobiography ‘Truth, Love and a Little Malice’?

(a) Khushwant Singh
(b) Chetan Bhagat
(c) Pratibha Ray
(d) Amrita Pritam

Answer: (a)

8. In 2023, a three-day All-India Taekwondo Championship was organized in _____ to mark 50 years of Korea-India diplomatic relations.

(a) Kolkata
(b) Bengaluru
(c) Mizoram
(d) New Delhi

Answer: (d)

9. The outward remittances under the Reserve Bank of India's _____ made a strong comeback in the first quarter of FY23 as Indians increased spending on international travel, maintenance of close relatives and gifts.

(a) Liberalised Remittance Scheme
(b) Regular Remittance Scheme
(c) Liquid Remittances Scheme
(d) Foreign Remittances Scheme

Answer: (a)

10. The Pradhan Mantri MUDRA Yojana (PMMY) scheme provide loans up to _____ to the non-corporate, non-farm small and micro entrepreneurs. (As of April 2023).

(a) 5 lakh
(b) 10 lakh
(c) 2.5 lakh
(d) 1 lakh

Answer: (b)

12. The _____ maestros who revived the m in the late 1940s include Kelucharan Mohapatra and Raghunath Dutta.

(a) Sattriya
(b) Odissi
(c) Manipuri
(d) Chhau

Answer: (b)

13.

The Guru Kelucharan Mohapatra Award 2022 was conferred upon Guru Niranjan Rout and Guru Ramahari Das for their contribution to the fields of _____ dance and music.

(a)

Sattriya

(b)

Kuchipudi

(c)

Kathak

(d)

Odissi

Answer: (d)

14. Which of the following is true about disposable income in relation to personal income?

(a) Disposable income is equal to personal income.

(b) Disposable income is always less than personal income.

(c) Disposable income is always greater than personal income.

(d) Disposable income can be greater or less than personal income, depending on taxes and deductions.

Answer: (b)

15. Which of the following best describes the proces[illegible] calorimetry?

(a) Measuring the amount of compressive strer[illegible]

(b) Measuring the amount of force

(c) Measuring the amount of electricity

(d) Measuring the amount of heat energy transferred

Answer: (d)

16. Which Article of the Constitution of India provides early childhood care and education for all children until they complete the age of six years?

(a) Article 38

(b) Article 39

(c) Article 45

(d) Article 40

Answer: (c)

17. Which of the following is NOT a constitutional body?

(a) Election Commission

(b) Finance Commission

(c) Union Public Service Commission

(d) NITI Aayog

Answer: (d)

19. According to the National Multidimensional Poverty Index of NITI Aayog 2021, which of the following states has less than 1% multidimensionally Poor of its total population?

(a) Maharashtra
(b) Punjab
(c) Telangana
(d) Kerala

Answer: (d)

20. According to the Hindu calendar, Holi is celebrated on _____.

(a) Chaitra Purnima
(b) Pausa Purnima
(c) Phalguna Purnima
(d) Magha Purnima

Answer: (c)

21.

Who was the music director of the famous song "Aye Mere Watan Ke Logon" sung by Lata Mangeshkar?

(a)
Kishore Kumar
(b)
Rajesh Roshan
(c)
C Ramchandra
(d)
Anand Raaj Anand

Answer: (c)

23. Which Indian sprinter bagged two gold medals, one each in the men's 100 and 200-metre races at the Flanders Cup 2023 athletics meet?

(a) Mohammed Afsal P
(b) Amlan Borgohain
(c) Tejas Shirse
(d) Jinson Johnson

Answer: (b)

24. Who became the first Indian javelin ace to win the gold at the Zurich Diamond League?

(a) Sahil Silwal
(b) Shivpal Yadav
(c) Neeraj Chopra
(d) Rohit Yadav

Answer: (c)

25. Which curve examines the relationship between the rate of unemployment and the rate of money wage changes?

(a) Phillips curve

(b) Indifference curve

(c) Supply curve

(d) Demand curve

Answer: (a)

English Language and Comprehension

1. The following sentence has been split into four segments. Identify the segment that contains a grammatical error. When I was in high school / I participated in several extracurricular activities / such as the debate team and the school newspaper / which help me developed my communication and writing skills.

(a) When I was in high school

(b) which help me developed my communication and writing skills

(c) such as the debate team and the school newspaper

(d) I participated in several extracurricular activities

Answer: (b)

2. Select the most appropriate option that can substitute the underlined segment in the given sentence. The rise in temperature is playing havoc wit[illegible]ndia's rainfall which is pertinent for India's agriculture sector.

(a) rainfall who is pertinent

(b) rainfall which is significant

(c) rainfall which is decant

(d) rainfall which was mendicant

Answer: (b)

3. Select the most appropriate idiom to fill in the blank. Sameera has been in _____ since she got selected for a highly paid job at a multinational company.

(a) seventh heaven

(b) all the rage

(c) the dark

(d) a cold day in July

Answer: (a)

4. Select the most appropriate meaning of the underlined segment in the given sentence. I hope you break a leg at your performance tonight!

(a) Give up

(b) Make a mistake

(c) Perform well

(d) Hurt yourself

Answer: (c)

5. Select the most appropriate option to fill in the blank. Winning the championship was a dream come true for the team, but being awarded the MVP trophy was _____.

(a) the silver lining

(b) the bird in the bush

(c) a cold turkey

(d) the icing on the cake

Answer: (d)

6. Select the most appropriate ANTONYM of the underlined word. We requested grandmother to extend her visit.

(a) Imperil

(b) Curtail

(c) Assail

(d) Bewail

Answer: (b)

7. Select the most appropriate option that can substitute the underlined segment in the given sentence. Simon is afraid of closed space.

(a) has xenophobia

(b) has ecophobia

(c) has claustrophobia

(d) has hydrophobia

Answer: (c)

8. Select the most appropriate synonym of the given word. Magnificent

(a) Justify

(b) Glorious

(c) Highest

(d) Modest

Answer: (b)

9. The sentence given below contains some spelling errors. Select the option that has the correct spellings. Appliications of subjects like Physiks and chemmistry in our dayly life also have higher visibelity than those of Biology.

(a) Applicasions of subjects like Physiks and Cemistry in our dayly life also have higher visibility than those of Biology.

(b) Appliications of subjects like Physics and chemistry in our dayly life also have higher visibelity than those of Biology.

(c) Applications of subjects like Physics and Chemistry in our daily life also have higher visibility than those of Biology.

(d) Applicacions of subjects like Physics and chemmistry in our daily life also have higher visibilety than those of Biology.

Answer: (c)

10. Parts of the given sentence have been underlined. One of them contains an error. The underlined parts are given as options with some changes. Select the option that correctly rectifies the error. The weather is cold tonight than it was yesterday.

(a) its
(b) are
(c) were
(d) colder

Answer: (d)

11. Select the option that correctly rectifies the underlined spelling error in the given sentence. Little children are afraid to go to school because of the agrassive seniors who tend to bully them.

(a) Aggresive
(b) Aggressive
(c) Agrresive
(d) Agrressive

Answer: (b)

12. Select the most appropriate option to fill in the blank. The scratches on her hands were clear signs of domestic violence, _____ and said that she got scratched by barbed wire fencing.

(a) and poverty
(b) yet she lied
(c) which was enough evidence
(d) done a while ago

Answer: (b)

13. Select the most appropriate option that can substitute the underlined segment in the given sentence. Rahul's sister says that my brother is the best dancer in the city.

(a) her brother is the best dancer in the city
(b) my brother was the best dancer in the city
(c) her brother was the best dancer in the city
(d) his brother was the best dancer in the city

Answer: (a)

14. Select the most appropriate option that can substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No improvement required'. A wonder in the plant kingdom, the Great Banyan Tree of the AJC Bose Botanical Garden at Shibpur in Howrah, occupies a unique position in the world records.

(a) occupying a unique position in
(b) occupies an unique position in
(c) No improvement required
(d) being occupied a unique position of

Answer: (c)

15. Parts of the following sentence have been given as options. Select the option that contains an error. The cholera is a frightful disease.

(a) is
(b) The cholera
(c) frightful disease
(d) a

Answer: (b)

17. Select the most appropriate idiom to fill in the blank. If Peter said he would get that book for you, he will do it. He always _____.

(a) keeps under his hat
(b) keeps him at arm's length
(c) keeps his word
(d) keeps his shirt on

Answer: (c)

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

It has raining very hard and he has a very large umbrella to keep off the rain-drops.

(a) shall rain
(b) is raining
(c) will be rainy
(d) rained

Answer: (b)

19. Select the most appropriate synonym of the underlined word in the given sentence. Shiya had more grit than her other siblings.

(a) power
(b) level
(c) gap
(d) courage

Answer: (d)

20. The following sentence has been divided into four parts. Identify the part that contains an error.
(A) The twins are /
(B) often told that /
(C) they are resembling /
(D) each other.

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

Answer: (a)

Passage — for questions 21–25

> In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number. Each essay is set (1)_____ against its background and made simpler by providing (2)_____ summary and critical commentary, short notes on textual issues, and (3)_____ of important critical and theoretical issues under the heading essay topics. (4)_____ of the most commonly used terms in the literature is given at the end and meant to serve as ready reference. This book will cater the (5)_____ of students of literature and teachers teaching this course.

21. Select the most appropriate option to fill in blank number 1.
    (a) in
    (b) at
    (c) on
    (d) off

    Answer: (d)

22. Select the most appropriate option to fill in blank number 2.
    (a) there
    (b) its
    (c) that
    (d) this

    Answer: (b)

23. Select the most appropriate option to fill in blank nber 3.
    (a) mindset
    (b) chats
    (c) discussions
    (d) thinking

    Answer: (c)

24. Select the most appropriate option to fill in blank number 4.
    (a) figures
    (b) glossary
    (c) grammar
    (d) data

    Answer: (b)

25. Select the most appropriate option to fill in blank number 5.
    (a) desires
    (b) whims
    (c) feelings
    (d) needs

    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	**(c)**	3	**(a)**	4	**(d)**	5	**(b)**	6	**(a)**	7	**(b)**	8	**(a)**		
9	**(c)**	10	**(c)**	11	**(b)**	12	**(a)**	13	**(b)**	15	**(a)**	16	**(a)**	17	**(d)**		
18	**(d)**	20	**(a)**														

Reasoning Ability and Problem Solving

1	**(c)**	2	**(c)**	3	**(b)**	4	**(b)**	6	**(d)**	7	**(c)**	8	**(b)**	9	**(c)**		
10	**(d)**	11	**(a)**	13	**(b)**	14	**(b)**	15	**(b)**	16	**(a)**	17	**(b)**	18	**(a)**		
19	**(a)**	20	**(c)**														

General Awareness

1	**(c)**	2	**(c)**	3	**(a)**	4	**(b)**	5	**(c)**	6	**(b)**	7	**(a)**	8	**(d)**		
9	**(a)**	10	**(b)**	12	**(b)**	13	**(d)**	14	**(b)**	15	**(d)**	16	**(c)**	17	**(d)**		
19	**(d)**	20	**(c)**	21	**(c)**	23	**(b)**	24	**(c)**	25	**(a)**						

English Language and Comprehension

1	**(b)**	2	**(b)**	3	**(a)**	4	**(c)**	5	**(d)**	6	**(b)**	7	**(c)**	8	**(b)**		
9	**(c)**	10	**(d)**	11	**(b)**	12	**(b)**	[illegible]	**(a)**	14	**(c)**	15	**(b)**	17	**(c)**		
18	**(b)**	19	**(d)**	20	**(a)**	21	**(d)**	[illegible]	**(b)**	23	**(c)**	24	**(b)**	25	**(d)**		