PREVIOUS YEAR PAPER

SSC MTS 2023 — 5 September 2023, Shift 1

SSC MTS & Havaldar · 5 September 2023 · 9:00 AM - 11:00 AM

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

Left out of the original paper: 6 (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 5 September 2023, 9:00 AM - 11:00 AM. 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-2023-5-sep-shift-1/

Numerical and Mathematical Ability

1.

Apples are bought at 25 for ₹250 and sold at 30 for ₹390. What is the profit/loss percentage in this transaction?

(a)

25% Profit

(b)

30% Profit

(c)

25% Loss

(d)

30% Loss

Answer: (b)

2.

The average height of a class of 50 students is 170 cm. What will be the average height (in cm, rounded off to the nearest integer) of the rest of the students if the average height of 15 of the students is 180 cm?

(a) 162

(b) 166

(c) 175

(d) 174

Answer: (b)

3.

A sum of ₹5,345, when invested at a certain rate of simple interest per annum for 10 years, earns an interest of ₹2,672.50 on maturity. What is the rate of simple interest per annum?

(a)

4.5%

(b)

8%

(c)

5%

(d)

6.5%

Answer: (c)

4.

Find the number of solid lead balls each 2 cm in diameter that can be made from solid sphere made up of lead of diameter 14 cm.

(a)

433

(b)

343

(c)

430

(d)

340

Answer: (b)

5.

The speed of a boat in still water is 30 km/h and the speed of the stream is 7.5 km/h. What is the time in hours taken by the boat in the stream to go from point A to B and then back to A covering a total distance of 90 km?

(a)

3.2

(b)

2.8

(c)

3.4

(d)

3.0

Answer: (a)

6.

What is the average of the first 13 multiples of 3?

(a)

21

(b)

39

(c)

42

(d)

35

Answer: (a)

7.

₹1,250 at 12% per annum compounded annually will amount to ₹1,568 in:

(a)

4 years

(b)

1 year

(c)

2 years

(d)

3 years

Answer: (c)

8.

The speed of a car is 90 km/h. The distance covered by the car in 7 Seconds will be:

(a)

172 metres

(b)

175 metres

(c)

170 metres

(d)

180 metres

Answer: (b)

9.

Anil works 3 times as fast as Sumit. If Sumit can complete a work in 12 days independently, then the number of days in which Anil and Sumit can together finish the work will be:

(a)

2

(b)

3

(c)

4

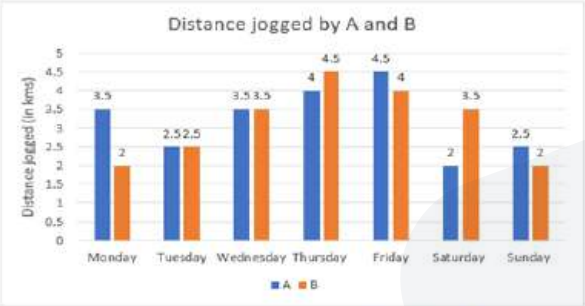
(d)

5

Answer: (b)

10.

The following graph refers to the distance jogged daily by two persons A and B.



If 100 calories are burnt by jogging 1 km, what is the difference between t' ...ories burnt by A and B in the given week?

(a)

150 calories

(b)

10 calories

(c)

100 calories

(d)

50 calories

Answer: (d)

11.

Vaishali booked a bus ticket for ₹1,260. Because of her ill health, she had to cancel the ticket. She got a refund of ₹945 in this process. What is the percentage loss that Vaishali had to face?

(a)

23%

(b)

15%

(c)

25%

(d)

33%

Answer: (c)

12.

Three numbers are in the ratio of 3 : 4 : 5 and their HCF is 18. What is the sum of these numbers?

(a)

198

(b)

216

(c)

234

(d)

180

Answer: (b)

13.

If two varieties of a grain worth ₹202 per kg and ₹250 per kg, respectively, are mixed in the ratio of 7 : 5, then what is the cost (in ₹) of the resulting mixture per kg?

(a)

225

(b)

218

(c)

222

(d)

220

Answer: (c)

14.

Akash is thrice as good a workman as Arvind and therefore is able to finish a job in 30 days less than Arvind. If they work together, in how many days can they finish the job?

(a)

$11\frac{1}{4}$

(b)

$11\frac{3}{4}$

(c)

$12\frac{3}{4}$

(d)

$12\frac{1}{4}$

Answer: (a)

15.

Find the value of x if $15\frac{2}{3} \times 3\frac{1}{6} + 6\frac{1}{3} = 11\frac{7}{18} + x$

(a)

$137\frac{4}{9}$

(b)

$44\frac{5}{9}$

(c)

$29\frac{7}{9}$

(d)

$39\frac{5}{9}$

Answer: (b)

16.

The following table gives the number of employees in different departments of an organisation and percentage of females and males. Study the table carefully and answer the question.

Department	Total No. of employees	% of females	% of males
IT	640	45	55
Accounts	220	40	60
Production	800	30	70
HR	360	65	35
Marketing	400	40	60

Find the ratio of the number of females in production and HR departments together to the number of males in the IT and Accounts departments together.

(a)

237 : 242

(b)

227 : 323

(c)

235 : 330

(d)

235 : 340

Answer: (a)

18.

Arrange the ratios in ascending order $5 : 3\frac{1}{3}$, $6\frac{1}{4} : 3\frac{1}{8}$ and $3.5 : 4.5$.

(a)

$3.5 : 4.5 < 5 : 3\frac{1}{3} < 6\frac{1}{4} : 3\frac{1}{8}$

(b)

$6\frac{1}{4} : 3\frac{1}{8} < 5 : 3\frac{1}{3} < 3.5 : 4.5$

(c)

$5 : 3\frac{1}{3} < 3.5 : 4.5 < 6\frac{1}{4} : 3\frac{1}{8}$

(d)

$5 : 3\frac{1}{3} < 6\frac{1}{4} : 3\frac{1}{8} < 3.5 : 4.5$

Answer: (a)

19.

If $15x = 24y = 32z$, then $x : y : z$ is equal to:

(a)

$32 : 15 : 20$

(b)

$15 : 24 : 32$

(c)

$32 : 20 : 15$

(d)

$24 : 15 : 4$

Answer: (c)

20.

The incomes of P, Q and R are in the ratio of $9 : 15 : 10$ and their savings are in the ratio is 10 : 15 : 12. If R spends 60% of his income, what is the ratio of the expenditures of P, Q and R?

(a)

$18 : 17 : 30$

(b)

$17 : 30 : 18$

(c)

$17 : 18 : 30$

(d)

$18 : 30 : 17$

Answer: (b)

Reasoning Ability and Problem Solving

1.

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

MQA, NRE, OSI, PTM, ?

(a)
RVO

(b)
QWN

(c)
QUQ

(d)
SUM

Answer: (c)

2.

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

_ ML _ MLLM _ L _ _

(a)
MLMML

(b)
MMLMM

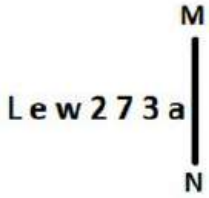
(c)
LLLML

(d)
LLMLM

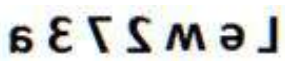
Answer: (c)

3.

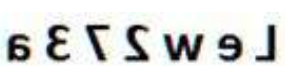
Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



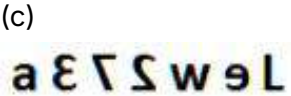
(a)



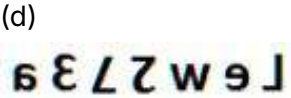
(b)



(c)



(d)



Answer: (b)

4.

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 needles are pins. Some pins are wood. All wood are cups.

Conclusion I: Some needles are wood.

Conclusion II: All cups are pins.

(a)

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

(b)

Only conclusion (II) is follow.

(c)

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

(d)

Only conclusion (I) is follow.

Answer: (a)

5.

In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /deleting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)
11 : 60
13 : 70

(a)

19 : 90

(b)

15 : 80

(c)

17 : 85

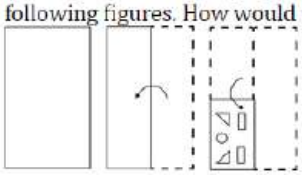
(d)

21 : 100

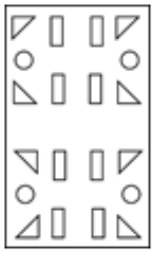
Answer: (b)

6.

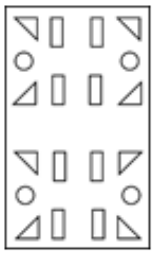
The sequence of folding a piece of paper and the manner in which the folded paper is cut is shown in the following figures. How would this paper look when unfolded?



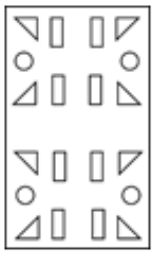
(a)



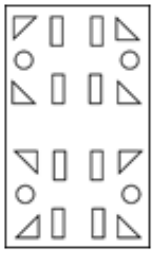
(b)



(c)



(d)



Answer: (c)

8.

In a certain code language, 'PING' is coded as '62' and 'HAZE' is coded as '68'. What is the code for 'GOAT' in the given code language?

(a)

67

(b)

65

(c)

66

(d)

69

Answer: (b)

9.

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 jars are plastic. Some plastic are spoons. No spoon is a fork.

Conclusion I: Some plastic are jars.

Conclusion II: Some forks are spoons.

(a)

Only conclusion (II) is follow.

(b)

Neither conclusion (I) nor (II) i

(c)

Only conclusion (I) is follow.

(d)

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

Answer: (c)

10.

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

11 44 143 440 1331 ?

(a)
3996

(b)
4118

(c)
4266

(d)
4004

Answer: (d)

11.

If G means '−', A means '×', F means '÷', B means '+', then what will come in place of the question mark (?) in the following equation?

37 B 16 A 3 G 88 F 8 = ?

(a)
74

(b)
69

(c)
93

(d)
51

Answer: (a)

12.

KGTO is related to HDQL in a certain way based on the English alphabetical order. In the same way, YFSH is related to VCPE. To which of the following is GUMS related to, following the same logic?

(a)
JXOU

(b)
DSKP

(c)
ESKU

(d)
DRJP

Answer: (d)

13.

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

_ KL _ K _ KK _ _ KL

(a)
KKLLK

(b)
LLKLL

(c)
KLKLL

(d)
LKLKL

Answer: (a)

14.

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

2 9 30 93 282 ?

(a)
813

(b)
849

(c)
861

(d)
857

Answer: (b)

15.

N, O, P, Q, R, S, T and U are sitting around a square table facing the center of the table. Some of them are sitting at the corners while some are sitting at the exact center of the sides. N sits third to the left of U. U sits in any of the corners. O sits third to the right of T. T sits in one of the corners. Q is the immediate neighbour of P and U. P is not the neighbour of N. R is not T's neighbour.

How many people sit between P and R, when counted from the right of P?

(a)
Two

(b)
Four

(c)
One

(d)
Three

Answer: (d)

16.

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

$7 + 3 - 6 \div 4 \times 4 = ?$

(a)

10

(b)

7

(c)

4

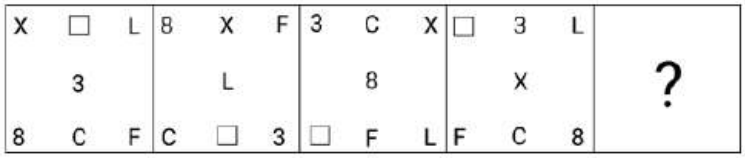
(d)

15

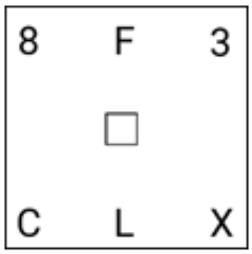
Answer: (a)

17.

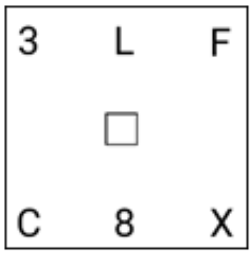
Which figure should replace the question mark (?) if the following figure series were to be continued?



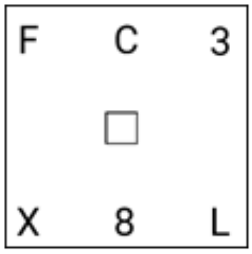
(a)



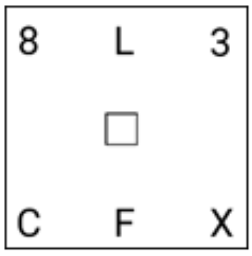
(b)



(c)



(d)



Answer: (a)

18.

Select the set in which the numbers are related in the same way as are the numbers of the following sets.
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)
(2, 14, 28)
(7, 11, 77)

(a)
4, 7, 23

(b)
6, 9, 54

(c)
1, 7, 45

(d)
8, 6, 98

Answer: (b)

19.

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

10 41 165 661 2645 ?

(a)
10597

(b)
10581

(c)
10604

(d)
10378

Answer: (b)

20.

If 5 October 2003 is a Sunday, then what will be the day of the week on 14 July 2010?

(a)

Friday

(b)

Monday

(c)

Wednesday

(d)

Saturday

Answer: (c)

General Awareness

2. Bihu is a folk dance of which state?

(a) Bihar

(b) Assam

(c) Chhattisgarh

(d) Arunachal Pradesh

Answer: (b)

3. In which year did Lord Curzon announce the par ›n of Bengal during the British rule in India?

(a) 1904

(b) 1906

(c) 1905

(d) 1907

Answer: (c)

4. Which of the following statements are correct regarding the Power Sector's Revamped Distribution Sector Scheme?

1) The Prime Minister launched the Ministry of Power's flagship Revamped Distribution Sector Scheme in 2022.
2) This scheme is aimed at improving the operational efficiencies and financial sustainability of distribution companies.
3) From FY 2022-23 to FY 2027-28, the scheme aims to provide financial assistance to DISCOMs.
4)This scheme proposes to provide 25 crore Smart Prepaid meters to consumers all over the country.

(a) 1, 3 and 4

(b) 1, 2 and 4

(c) 2, 3 and 4

(d) 1, 2 and 3

Answer: (b)

5. ‘Mein Kampf’ is the autobiography of which world personality?

(a) Adolf Hitler
(b) Robert Mugabe
(c) Albert Einstein
(d) Charlie Chaplin

Answer: (a)

6. What is the geographic location of the world's largest coral reef, known as the Great Barrier Reef?

(a) Switzerland
(b) Australia
(c) China
(d) Ireland

Answer: (b)

7.

To which Gharana did Gangubai Hangal primarily belong?

(a)
Patiala
(b)
Agra
(c)
Banaras
(d)
Kirana

Answer: (d)

8. Popular since ancient eras for the trading of livestock, _____, which is a monthlong event, takes place on the auspicious occasion of Kartik Purnima in the month of November near Harihar Nath temple.

(a) Sonepur Mela
(b) Rajgir Mela
(c) Pushkar Mela
(d) Ardhkumbh Mela

Answer: (a)

9. How many states were selected in Garib Kalyan Rojgar Abhiyaan (GKRA) 2020?

(a) 16 states
(b) 6 states
(c) 10 states
(d) 8 states

Answer: (b)

11.

Which Indian musician was awarded the Grammy award for his Album 'Planet Drum'?

(a)

Zakir Hussain

(b)

Sivamani

(c)

Darshan Doshi

(d)

Trilok Gurtu

Answer: (a)

12. Which of the following is NOT a part of the six communication mail channels in India?

(a) Metro channel

(b) Monthly channel

(c) Rajdhani channel

(d) Business channel

Answer: (b)

13. Which of the following is an example of a non-debt capital receipt in the government budget?

(a) Sale of government-owned land

(b) Loans from international financial institutions

(c) Interest payment on government bonds

(d) Tax revenue collected from citizens

Answer: (a)

14. Visva Bharati a famous educational institute was founded in 1921 by:

(a) Rabindranath Tagore

(b) Vinoba Bhave

(c) Mother Teresa

(d) Swami Chinmayananda

Answer: (a)

15. How many women boxers from India won gold medals in the Women's World Boxing Championship 2023?

(a) 2

(b) 3

(c) 1

(d) 4

Answer: (d)

16. Famous Bollywood actress Hema Malini is a trained _____ dancer.

(a) Kathak
(b) Bharatanatyam
(c) Odissi
(d) Kuchipudi

Answer: (b)

17. Whose prior recommendation is required to introduce money bills in state legislature?

(a) Speaker of the House
(b) Chief Minster
(c) Governor
(d) Advocate General

Answer: (c)

19. Where is the Qutub Minar situated?

(a) Delhi
(b) Agra
(c) Lucknow
(d) Chandigarh

Answer: (a)

20. Which is the most obvious symptom of infantile ja dice that usually appears between the second and fourth day after birth?

(a) Cracking and irritation at the corners of mou
(b) Swollen or puffy ankles
(c) Yellowing of the skin and the whites of the yes
(d) Swelling and bleeding of the gums

Answer: (c)

22. In which of the following cities the 2023 SAFF Championship was held?

(a) Mumbai
(b) Bengaluru
(c) Kochi
(d) Ahmedabad

Answer: (b)

23. Mirabai Chanu was selected as BBC Indian Sportswoman of the Year 2022. She is related to which sport?

(a) Discus throw
(b) Javelin throw
(c) Boxing
(d) Weightlifting

Answer: (d)

24. Punjab state is rich in which natural resource from the following?
    (a) Coal
    (b) Petroleum
    (c) Silicon
    (d) Fertile soil
    Answer: (d)

25. How many schedules are there in our Constitution as of June 2023?
    (a) 8
    (b) 9
    (c) 12
    (d) 10
    Answer: (c)

English Language and Comprehension

1. Select the most appropriate synonym of the given word. Diminish
    (a) Demote
    (b) Relegate
    (c) Prevent
    (d) Weaken
    Answer: (d)

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

A person who loves or collects books
    (a) Anglophile
    (b) Heliophile
    (c) Paedophile
    (d) Bibliophile
    Answer: (d)

3. The following sentence has been divided into four parts. Identify the part that contains an error.
(A) We are living /
(B) here since /
(C) the summer /
(D) of last year.
    (a) A
    (b) C
    (c) B
    (d) D
    Answer: (a)

4. Select the most appropriate option to fill in the blank. Suresh has been learning Tamil _____ two months.

(a) from
(b) since
(c) before
(d) for

Answer: (d)

5. Select the most appropriate meaning of the underlined idiom in the given sentence.

Rina's house is at a stone's throw from the school.

(a) A very long distance
(b) Next to
(c) A very short distance
(d) Not very close to

Answer: (c)

6. Select the INCORRECTLY spelt word.

(a) Wrestler
(b) Accompanyment
(c) Debatable
(d) Discrepancy

Answer: (b)

7. Select the most appropriate option to substitute the underlined segment in the given sentence.
Mohan unknowingly altered salt instead of sugar in the dessert making it taste terrible.

(a) added salt instead of sugar
(b) anguished salt instead of sugar
(c) amplified salt instead of sugar
(d) abridged salt instead of sugar

Answer: (a)

8. Select the most appropriate meaning of the underlined idiom.

The actor decided to live life in the fast lane.

(a) Dropping charges of crime
(b) A life filled with excitement
(c) Racing away to the moon
(d) A life of extreme speed

Answer: (b)

9. Parts of the following sentence have been given as options. Select the option that contains an error. Sanjana rubbed her eyes hardly.

(a) Sanjana
(b) rubbed
(c) hardly
(d) her eyes

Answer: (c)

10. Select the most appropriate idiom to fill in the blank. I asked my friend to _____ against her employers who are doing wrong to her.

(a) fine words butter no parsnips
(b) finders keepers, losers weepers
(c) fight the good fight
(d) fight fire with fire

Answer: (d)

11. Parts of the following sentence have been underlined and given as options. Select the option that contains a misspelt word. The single most important factor that distinguishes those of us who succed in any venture and those of us who don't is this 'instant coffee' attitude.

(a) venture
(b) attitude
(c) distinguishes
(d) succed

Answer: (d)

12. The following sentence has been divided ... ts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. A night alone / in a hotel / can be lonely prospect.

(a) can be lonely prospect
(b) A night alone
(c) No error
(d) in a hotel

Answer: (a)

13. 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 new restaurant on Main Street is cheap than the old one.

(a) the older one
(b) in Main Street
(c) newer restaurant
(d) is cheaper than

Answer: (d)

14. Parts of the following sentence have been underlined and given as options. Select the option that contains an error. My relatives shall have reached Amritsar by now.

(a) My
(b) by now
(c) shall
(d) reached

Answer: (c)

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

(a) Gaggle
(b) Shoal
(c) Swarm
(d) Pack

Answer: (c)

16. Select the most appropriate ANTONYM of the given word. Crude

(a) Patient
(b) Refined
(c) Primitive
(d) Observant

Answer: (b)

17. Select the most appropriate option to fill in the b[illegible]. Can you quote any _____ in your favour?

(a) answer
(b) summary
(c) lines
(d) precedent

Answer: (d)

18. Select the INCORRECTLY spelt word.

(a) Insurance
(b) Assasin
(c) Mischievous
(d) Inexpressible

Answer: (b)

19. Select the most appropriate meaning of the underlined segment in the given sentence. Buying a new car can cost an arm and a leg.

(a) Be free
(b) Be affordable
(c) Be reasonable
(d) Be expensive

Answer: (d)

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

(a) Persist

(b) Resist

(c) Heist

(d) Assist

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 are several reasons why people might 1)_____ that homework is an unnecessary burden on children. Firstly, there is evidence to support the idea that homework 2)_____nothing to improve educational outcomes. Countries such as Finland, where school children are not given homework, regularly top international educational league tables and outperform nations where setting homework is the norm. Secondly, many parents would agree that the school day is already 3)_____, and leaves their children too tired to do further study when they return home. 4)_____, it is recognised that play time is just as 5)_____as study time from the perspective of brain development.

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

(a) be argues

(b) have argue

(c) argues

(d) argue

Answer: (d)

22. Select the most appropriate option to fill in blar ..

(a) will does

(b) has do

(c) does

(d) do

Answer: (c)

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

(a) long enough

(b) big enough

(c) not enough

(d) enough of

Answer: (a)

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

(a) Similarly

(b) Normally

(c) Finally

(d) Usually

Answer: (c)

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

(a) soon

(b) beneficial

(c) bad

(d) confidential

Answer: (b)

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	**(b)**	2	**(b)**	3	**(c)**	4	**(b)**	5	**(a)**	6	**(a)**	7	**(c)**	8	**(b)**
9	**(b)**	10	**(d)**	11	**(c)**	12	**(b)**	13	**(c)**	14	**(a)**	15	**(b)**	16	**(a)**
18	**(a)**	19	**(c)**	20	**(b)**										

Reasoning Ability and Problem Solving

1	**(c)**	2	**(c)**	3	**(b)**	4	**(a)**	5	**(b)**	6	**(c)**	8	**(b)**	9	**(c)**
10	**(d)**	11	**(a)**	12	**(d)**	13	**(a)**	14	**(b)**	15	**(d)**	16	**(a)**	17	**(a)**
18	**(b)**	19	**(b)**	20	**(c)**										

General Awareness

2	**(b)**	3	**(c)**	4	**(b)**	5	**(a)**	6	**(b)**	7	**(d)**	8	**(a)**	9	**(b)**
11	**(a)**	12	**(b)**	13	**(a)**	14	**(a)**	15	**(d)**	16	**(b)**	17	**(c)**	19	**(a)**
20	**(c)**	22	**(b)**	23	**(d)**	24	**(d)**	25	**(c)**						

English Language and Comprehension

1	**(d)**	2	**(d)**	3	**(a)**	4	**(d)**	5	**(c)**	6	**(b)**	7	**(a)**	8	**(b)**
9	**(c)**	10	**(d)**	11	**(d)**	12	**(a)**	[illegible]	**(d)**	14	**(c)**	15	**(c)**	16	**(b)**
17	**(d)**	18	**(b)**	19	**(d)**	20	**(a)**	[illegible]	**(d)**	22	**(c)**	23	**(a)**	24	**(c)**
25	**(b)**														