PREVIOUS YEAR PAPER

SSC MTS 2023 — 14 September 2023, Shift 2

SSC MTS & Havaldar · 14 September 2023 · 12:30 PM - 2:30 PM

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

Left out of the original paper: 7 (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, 12:30 PM - 2:30 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-2023-14-sep-shift-2/

Numerical and Mathematical Ability

2.

On comparing the following two numeric expressions, we find that_____.

$[(2\frac{7}{9})^{2\frac{1}{2}}]^{\frac{3}{5}}$ and $[(1\frac{2}{3})^{5}]^{\frac{3}{5}}$

(a)

both the expressions are equal

(b)

the first expression is smaller than the se ıd

(c)

the first expression is larger thar he s nd

(d)

the given two expressions cannot be compared

Answer: (a)

3. By selling an article for ₹5,280, Geeta lost 12%. For what amount should she sell it to make a profit of 12%?

(a) ₹6,820

(b) ₹7,150

(c) ₹5,780

(d) ₹6,720

Answer: (d)

5. Suresh could save 20% of his income. But 4 years later, when his income increased by 40%, he could save the same amount only as before. By how much percentage did his expenditure increase?

(a) 23%

(b) 50%

(c) 22%

(d) 45%

Answer: (b)

6.

If Mohit, Nitu and Soma can complete a piece of work in 5 days, 6 days and 8 days, respectively, then in how many days will the work be completed if they work on alternate days starting with Mohit on first day , then Nitu on second day , then Soma on third day , then Mohit on fourth day and so on.

(a)

$5\frac{7}{12}$

(b)

$7\frac{1}{60}$

(c)

$4\frac{7}{15}$

(d)

$6\frac{1}{12}$

Answer: (d)

7.

A triangle has its sides 5 cm, 12 cm and 13 cm. What will be the area of the triangle formed by joining the mid point of the three sides?

(a)

$7\,{}^{1}/_{2}\ \text{cm}^2$

(b)

$19\,{}^{1}/_{2}\ \text{cm}^2$

(c)

$13\,{}^{1}/_{2}\ \text{cm}^2$

(d)

$15\ \text{cm}^2$

Answer: (a)

8.

A sum of ₹800 amounts to ₹1,040 in 3 years at simple interest. If the interest rate is increased by 3%, find the amount.

(a)

₹1,102

(b)

₹1,212

(c)

₹1,112

(d)

₹1,012

Answer: (c)

9.

If a person walks at 18 km/hr instead of 12 km/hr, he would have walked 24 km more. What is the actual distance travelled by him?

(a)

52 km

(b)

60 km

(c)

55 km

(d)

48 km

Answer: (d)

10.

If A : B = 2 : 1 and B : C = 1 : 3, then C : A is:

(a)

3 : 1

(b)

2 : 3

(c)

3 : 2

(d)

1 : 3

Answer: (c)

11.

Find the smallest three digit number which when added to 5 is exactly divisible by 12, 14 and 18.

(a)

240

(b)

225

(c)

245

(d)

247

Answer: (d)

12.

A, B and C working separately can do a piece of work in 11 days, 20 days and 55 days, respectively. If they work together, then the time taken to complete the work is:

(a)

$6\frac{2}{7}$ days

(b)

$5\frac{1}{7}$ days

(c)

$4\frac{1}{7}$ days

(d)

$\frac{1}{7}$ days

Answer: (a)

13.

The weight of a cube varies directly as the product of its volume and its density. The ratio of densities of the materials of the first cube and second cube is 27 :16. If the weight of the first cube is 4 times the weight of the second cube, then what is the ratio of the edges of the first cube and second cube?

(a)

2 : 3

(b)

3 : 2

(c)

3 : 4

(d)

4 : 3

Answer: (d)

14.

The height of a right circular cone is 20 cm, and its base diameter is 30 cm. What is the curved surface area and the total surface area of the right circular cone, respectively?

(a)

$335\pi \text{ cm}^2$ and $525\pi \text{ cm}^2$

(b)

$390\pi \text{ cm}^2$ and $475\pi \text{ cm}^2$

(c)

$450\pi \text{ cm}^2$ and $625\pi \text{ cm}^2$

(d)

$375\pi \text{ cm}^2$ and $600\pi \text{ cm}^2$

Answer: (d)

15.

Study the given table and answer the question that follows.

The table gives the percentage of marks obtained by five students in five different subjects.

Students	Subjects (Max Marks 100)				
	Mathematics	Physics	Chemistry	English	Hindi
Rahul	60	80	75	70	80
Vijay	80	90	[illegible]	75	85
Nani	70	80	70	70	80
Ganesh	80	75	60	60	65
Rohit	70	70	50	50	75

What is the average marks obtained by all the five students in Mathematics?

(a) 70

(b) 75

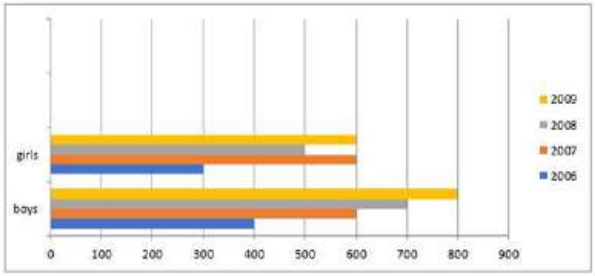
(c) 72

(d) 65

Answer: (c)

16.

The following bar graph indicates the enrolment of boys and girls in a school during the years 2006-2009. Study the bar graph carefully and answer the question.



Find the ratio of the total number of boys to girls enrolled in all the years 2006 to 2009.

(a)

$3:4$

(b)

$3:5$

(c)

$5:3$

(d)

$5:4$

Answer: (d)

17.

Money is doubled in a bank account in 7 years, when the interest is comp ed annually. What time in years is needed to make an amount 8 times in the bank?

(a)

21

(b)

14

(c)

35

(d)

28

Answer: (a)

18.

A car travels 200 km at a speed of 50 km/h and then travels another 200 km at a speed of 80 km/h. What is the average speed of the car for the entire journey? (round to two places of decimals)

(a)

59.75km/h

(b)

60.24 km/h

(c)

61.54 km/h

(d)

62.53 km/h

Answer: (c)

19.

A thief noticed a policeman from a distance of 300 m and started to run at a speed of 12 km/h. The policeman chased at a speed of 13 km/h and he caught the thief. What was the distance run by the thief?

(a)

7200 m

(b)

4800 m

(c)

1800 m

(d)

3600 m

Answer: (d)

20.

S gets 65, 74, 62, 68 and 68 marks in Hindi, English, Mathematics, Physics and Chemistry, respectively. His average marks in Mathematics, Hindi and English are _____ more than the average marks in Mathematics, Physics and Chemistry.

(a)

0.5

(b)

1.33

(c)

1.67

(d)

1

Answer: (d)

Reasoning Ability and Problem Solving

1.

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

41 43 47 53 61 ?

(a)
73

(b)
74

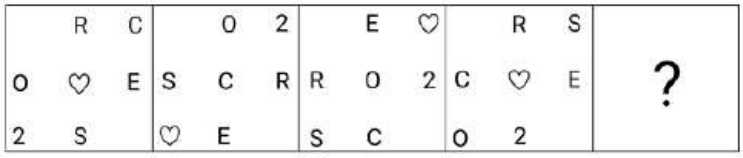
(c)
71

(d)
72

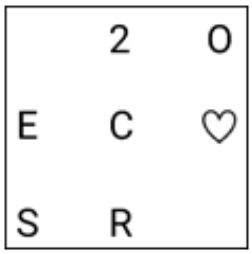
Answer: (c)

2.

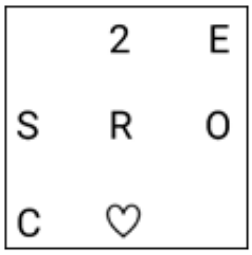
Which figure should replace the question mark (?) if the following figure series were to be continued?



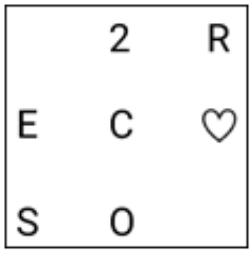
(a)



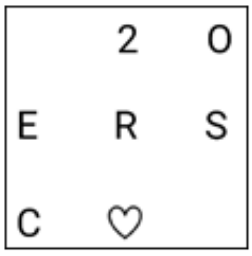
(b)



(c)



(d)



Answer: (d)

3.

Find out the correct alternative that when filled in the blanks in the same sequence will make the series logically complete.

B_KPBN_R _OKTB_KVBQK_

(a)

SJORN

(b)

MKBPX

(c)

JFIEH

(d)

MFHID

Answer: (b)

4.

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

$12 - 6 \div 3 + 3 \times 7 = ?$

(a)

66

(b)

14

(c)

11

(d)

33

Answer: (a)

5.

In a certain code language, 'DIAL' is coded as '1326' and 'IDLE' is coded as '6183'. What is the code for 'E' in the given code language?

(a)

1

(b)

8

(c)

3

(d)

6

Answer: (b)

6.

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

44 F 18 C 3 B 108 D 6 = ?

(a)

8

(b)

18

(c)

6

(d)

16

Answer: (a)

7.

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: (d)

8.

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

HPA, KTD, NXG, QBJ, ?

(a)

UEM

(b)

TFM

(c)

SEN

(d)

SFN

Answer: (b)

10.

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: Some schools are big. All big are malls. No mall is cheap.

Conclusion I: All big are schools.

Conclusion II: Some malls are big.

(a)

Both conclusions (I) and (II) are follow

(b)

Only conclusion (II) is follow.

(c)

Only conclusion (I) is follow.

(d)

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

Answer: (b)

11.

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 trash are rags. Some rags are big. All big are crabs.

Conclusion I: All big are rags.

Conclusion II: Some crabs are rags.

(a)

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

(b)

Only conclusion (I) is follow.

(c)

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

(d)

Only conclusion (II) is follow.

Answer: (d)

13.

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 nbers of the following sets. (NOTE: Operations should be performed on the whole numbers, without breakin n the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /deleting /multiplying etc. to 1 be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not all

3 : 7
5 : 23

(a)

6 : 34

(b)

8 : 64

(c)

9 : 80

(d)

4 : 18

Answer: (a)

14.

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

16 17 20 21 24 ?

(a)
30

(b)
25

(c)
28

(d)
27

Answer: (b)

15.

If 3rd Oct 2011 is Monday, then what will be the day of the week on 4th Nov 2021?

(a)
Friday

(b)
Tuesday

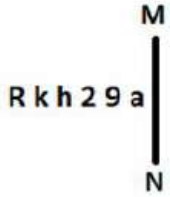
(c)
Thursday

(d)
Monday

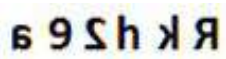
Answer: (c)

16.

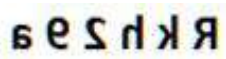
Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



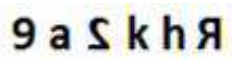
(a)



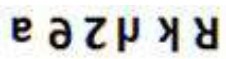
(b)



(c)



(d)



Answer: (b)

17.

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

13 34 76 160 328 ?

(a)

625

(b)

664

(c)

672

(d)

638

Answer: (b)

18.

In a certain code language, 'ENTER' is coded as 'FOTGT' and 'DICEY' is coded as 'EJCGA'. What is the code for 'CHILD' in the given code language?

(a)
DIINF
(b)
DHIME
(c)
EJJNE
(d)
EHIMF

Answer: (a)

19.

Six people, Kajal, Neetu, Lovey, Omar, Meenu and Jay are sitting in a straight line, facing north.
Lovey sits 3rd from the left end. Neetu sits 2nd to the right of Lovey. Omar sits to the immediate right of Neetu. Meenu sits 2nd to the left of Omar. Kajal sits 2nd to the left of Meenu.
Who sits to the immediate left of Lovey?

(a)
Kajal
(b)
Meenu
(c)
Omar
(d)
Jay

Answer: (a)

General Awareness

1. Swami Dayanand Saraswati founded a reform organisation in 1875 that attempted to reform Hinduism. What was it called?

(a) Arya Samaj
(b) Prarthna Samaj
(c) Satyashodhak Samaj
(d) Brahmo Samaj

Answer: (a)

2. The Brihadeswara Temple at Tanjavur built by:

(a) Rajaraja II
(b) Samudragupta
(c) Rajendra Chola
(d) Rajaraja I

Answer: (d)

3.

Which diseases result from a deficiency of Vitamin B due to its insufficient intake?

(a)

Colour blindness

(b)

Rickets

(c)

Beri Beri

(d)

Scurvy

Answer: (c)

4. What is the minimum voting age for the citizens of India?

(a) 18 years

(b) 21 years

(c) 30 years

(d) 25 years

Answer: (a)

5.

Who among the following singers had a Guinness World Record for recor 28 songs in a single day? (As of December 2022.)

(a)

Sonu Nigam

(b)

Udit Narayan

(c)

Kumar Sanu

(d)

Arijit Singh

Answer: (c)

6.

'Anandamath'is a famous _____ novel which was written by Bankim Chandra Chatterjee.

(a)

Gujarati

(b)

Rajasthani

(c)

Punjabi

(d)

Bengali

Answer: (d)

7. The four Nattuvanars namely Ponaiyah, Vadivelu, Sivanandam and Chinnaiya, who are renowned as Tanjaore Bandhu shaped up the modern day _____.

(a) Bharatanatyam

(b) Kuchipudi

(c) Kodiattam

(d) Kathakali

Answer: (a)

8. In February 2023, Uttar Pradesh government laun d a/an _____ called Family ID-One Family One Identity.

(a) Portal

(b) News letter

(c) WhatsApp Group

(d) Email Id

Answer: (a)

9.

Which of the following statements is best related to the 'pacific ring of fire'?

(a)

Known for thermal power station

(b)

Known for volcano and earthquakes

(c)

Known for only glacial formations

(d)

Known for tropical rainforests

Answer: (b)

10. Why are intermediate goods NOT included in the calculation of national income?

(a) Including intermediate goods would result in double counting.

(b) Intermediate goods are not produced within the country's borders.

(c) Including intermediate goods would decrease the value of national income.

(d) Intermediate goods are not important for measuring economic activity.

Answer: (a)

11. According to the Global Multidimensional Poverty Index (MPI) 2021,India's rank is _____ out of 109 countries.

(a) 66th

(b) 71st

(c) 59th

(d) 63rd

Answer: (a)

12.

The tribal dancer and singer, Arjun Singh Dhurve from _____ has been conferred with ' Padma Shri' in the year 2022.

(a)

Karnataka

(b)

Tamil Nadu

(c)

Madhya Pradesh

(d)

Andhra Pradesh

Answer: (c)

13. What is the main purpose of a bank statement?

(a) To track income and expenses

(b) To transfer funds to another account

(c) To advertise new banking products

(d) To have locker facility in the bank

Answer: (a)

14. The Konark Dance Festival (KDF) has been held at Konark since 1986 between _____ every year.

(a) 1st and 5th October

(b) 1st and 5th August

(c) 1st and 5th January

(d) 1st and 5th December

Answer: (d)

15. Identify the southernmost range of the Himalaya from the following.

(a) Shiwaliks Range
(b) Trans Himalaya Range
(c) Lesser Himalaya Range
(d) Greater Himalaya Range

Answer: (a)

18. The novel 'Train to Pakistan' was written by _____.

(a) Khushwant Singh
(b) Nawaz Sharif
(c) Zakir Hussain
(d) Imran Khan

Answer: (a)

19. Popular Bollywood actor Kriti Sanon is a trained _____ dancer.

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

Answer: (b)

20. In which of the following cities was the final matc the 2022 Vijay Hazare Trophy held?

(a) Ahmedabad
(b) Raipur
(c) Lucknow
(d) Ranchi

Answer: (a)

21. Who started the chemical revolution in the 18th century by naming oxygen and helping to organize chemical nomenclature?

(a) Dame Kathleen Lonsdale
(b) Svante August Arrhenius
(c) Joseph Priestley
(d) Antoine-Laurent Lavoisier

Answer: (d)

22. Aman Sehrawat became the first Indian to win a gold medal in World Wrestling Championship in which category?

(a) U-15
(b) U-20
(c) U-23
(d) U-25

Answer: (c)

23. Independence Day is celebrated every year in Pakistan on _____.
    (a) 30 January
    (b) 14 August
    (c) 31 December
    (d) 23 March
    Answer: (b)

24. Which of the following Indian musicians was called 'Mallika-e-Ghazal'?
    (a) Prabha Bharti
    (b) Begum Akhtar
    (c) Chitra Singh
    (d) Farida Khanum
    Answer: (b)

25. The word 'yorker' is related to which sport?
    (a) Kho Kho
    (b) Cricket
    (c) Basketball
    (d) Kabaddi
    Answer: (b)

English Language and Comprehension

1. Select the most appropriate option to fill in the bl .

I wish we had _____ come here.
    (a) right
    (b) clear
    (c) never
    (d) agreed
    Answer: (c)

2. Select the most appropriate ANTONYM of the given word. Carnal
    (a) Material
    (b) Spiritual
    (c) Temporal
    (d) Somatic
    Answer: (b)

3. Select the option that can be used as a one-word substitute for the given group of words. Fail to function normally

(a) Maltreat
(b) Mangle
(c) Manipulate
(d) Malfunction

Answer: (d)

4. Select the most appropriate meaning of the given phrase.

All of a sudden

(a) Intentionally
(b) Quickly and unexpectedly
(c) Quickly and Expectedly
(d) Accidently

Answer: (b)

5. The following sentence has been split into four segments. Identify the segment that contains a grammatical error.

My daughter was / invited to lunch / hosted by the Governor / at his residence.

(a) at his residence
(b) invited to lunch
(c) hosted by the Governor
(d) My daughter was

Answer: (b)

6. Select the INCORRECTLY spelt word.

(a) Resist
(b) Rectifie
(c) Recruit
(d) Repulse

Answer: (b)

7. Select the option that rectifies the spelling of the underlined word in the given sentence.

The maintenence department did a fabulous job.

(a) mainteanance
(b) maintenance
(c) maintenannce
(d) meintenance

Answer: (b)

8. Select the most appropriate synonym of the bracketed word in the following sentence to fill in the blank. The novel's intricate plot and rich character development kept readers _____(committed) from the beginning to the end.

(a) engaged
(b) secluded
(c) detached
(d) dismantled

Answer: (a)

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

These things are very hard to swallow.

(a) difficult to resist
(b) difficult to speak
(c) difficult to believe
(d) difficult to eat

Answer: (c)

10. Select the most appropriate idiom to fill in the blank.

The decision to go on a trip after my vacations was the _____.

(a) ice on the cake
(b) icing on the cake
(c) apple on the cake
(d) icing on the brownie

Answer: (b)

11. The following sentence has been split into four segments. Identify the segment that contains a grammatical error.

The new software / consists from / several features / and tools.

(a) consists from
(b) several features
(c) and tools
(d) The new software

Answer: (a)

12. Select the most appropriate idiom to fill in the blank. It's easy to say that you'll start exercising every day, but it is _____.

(a) like fish out of water
(b) easier said than done
(c) crying wolf
(d) going the extra mile

Answer: (b)

13. Select the INCORRECTLY spelt word.

(a) Paralycis
(b) Lyricist
(c) Indigestion
(d) Patron

Answer: (a)

14. Select the most appropriate ANTONYM of the word given in brackets to fill in the blank. Uncle Joe is _____(reputable) for spending 10 years of his youth in prison due to armed robbery.

(a) mournful
(b) anxious
(c) well-known
(d) notorious

Answer: (d)

15. Parts of the following sentence have been given as options. Select the option that contains an error. If you work hard, you secure good marks.

(a) good marks
(b) If you
(c) work hard
(d) you secure

Answer: (d)

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

A person who is skilled in making maps

(a) Calligrapher
(b) Curator
(c) Cacographer
(d) Cartographer

Answer: (d)

17. Select the option that can be used as a one-word substitute for the underlined group of words.
Sita loves her glass container in which she has many fish.

(a) aquarium
(b) cannister
(c) planetarium
(d) museum

Answer: (a)

18. Select the most appropriate option that can rectify the underlined segment in the given sentence. If there is no need to rectify it, select 'no rectification needed'.

His claim to be the smartly kid in the school was a bit hyperbole!

(a) no rectification needed
(b) smartest
(c) smarter
(d) smart

Answer: (b)

19. Select the option that can be used as a one-word substitute for the given group of words. Easily set on fire

(a) Innocuous
(b) Ingrained
(c) Inflammable
(d) Inimical

Answer: (c)

20. The following sentence has been split into four segments. Identify the segment that contains an error. She has / bought / a car / two years ago.

(a) She has
(b) bought
(c) two years ago
(d) a car

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. Students put their heart and soul into studies while (1)_____ for examinations. They prepare the syllabus by giving many revisions, making important points on flash cards, preparing notes throughout the year. They read reference books in order to score good marks in the examination. This is the demanding (2)_____ of all the students who are appearing in the examinations. But, most students feel tensed on the day before an examination. Everyone is in a state of (3)_____ as to what questions would be asked in the paper and whether they could write their answers properly to get good marks. Such overthinking is the cause of (4)_____ which definitely affects their performance. They should revise the subject regularly and should not keep their doubts pending. This will not create a (5)_____ of backlog and they will get sufficient time to resolve their problem.

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

(a) calculating
(b) guiding
(c) producing
(d) preparing

Answer: (d)

22. Select the most appropriate option to fill in blank number 2.
    (a) principle
    (b) method
    (c) routine
    (d) habit
    Answer: (c)

23. Select the most appropriate option to fill in blank number 3.
    (a) confidence
    (b) hesitation
    (c) assurance
    (d) uncertainty
    Answer: (d)

24. Select the most appropriate option to fill in blank number 4.
    (a) anxiety
    (b) agitation
    (c) peace
    (d) comfort
    Answer: (a)

25. Select the most appropriate option to fill in blank number 5.
    (a) burden
    (b) mass
    (c) weight
    (d) power
    Answer: (a)

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

2	**(a)**	3	**(d)**	5	**(b)**	6	**(d)**	7	**(a)**	8	**(c)**
9	**(d)**	10	**(c)**	11	**(d)**	12	**(a)**	13	**(d)**	14	**(d)**
15	**(c)**	16	**(d)**	17	**(a)**	18	**(c)**	19	**(d)**	20	**(d)**

Reasoning Ability and Problem Solving

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

General Awareness

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

English Language and Comprehension

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