PREVIOUS YEAR PAPER

SSC MTS 2023 — 8 September 2023, Shift 2

SSC MTS & Havaldar · 8 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 8 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-2023-8-sep-shift-2/

Numerical and Mathematical Ability

1.

A boat covers a certain distance downstream in 5 hours but takes 8 hours to return upstream to the starting point. If the speed of the stream is 6 km/h, find the speed of the boat in still water.

(a)
26 km/h

(b)
13 km/h

(c)
78 km/h

(d)
39 km/h

Answer: (a)

2.

Three numbers are in the ratio 5 : 2 : 7. The sum of their squares is 3822. The biggest number is:

(a)
35

(b)
38

(c)
78

(d)
49

Answer: (d)

3.

A path of uniform width 2.5 m runs around the outside of a rectangular field of dimensions 45 m × 35 m. What is the area of the path (in m^2) ?

(a)

500

(b)

425

(c)

475

(d)

525

Answer: (b)

5.

Find the amount if ₹10,200 is invested at the rate of 8% per annum compound interest for $1\frac{1}{2}$ years when interest is compounded half yearly (up to two decimal places).

(a)

₹11,743.61

(b)

₹11,473.61

(c)

₹11,764.28

(d)

₹11,347.28

Answer: (b)

7.

Among four numbers the sum of the smallest and largest is 72 more than the sum of middle two numbers . If the numbers are in the ratio 6 : 7 : 15 : 19, then the smallest number is:

(a)

72

(b)

144

(c)

168

(d)

216

Answer: (b)

8.

A man runs across an 1800 m long street in 6 min. Calculate his speed in m/sec.

(a)

5

(b)

4

(c)

6

(d)

8

Answer: (a)

9.

The following marks are obtained by a student in five subjects.

Subjects	Marks
Geography	42
History	43
Civics	51
Hindi	54
CS	50

What is the difference between the minimum and marks scored by the student?

(a)

10

(b)

4

(c)

2

(d)

12

Answer: (d)

10.

The sale of tickets (in thousands) in days of a week is given in the pie chart:



The combined angle made at the centre by which days is equal to the angle made by Saturday?

(a)

Sunday, Monday and Tuesday

(b)

Tuesday, Wednesday and Thursday

(c)

Monday, Tuesday and Wednesday

(d)

Wednesday, Thursday and Friday

Answer: (a)

12. A dealer buys some goods for ₹3,600. If the overhead expenses be 5% of the cost price, then at what price should it be sold to earn 15%?

(a) ₹4,347

(b) ₹4,734

(c) ₹4,437

(d) ₹4,743

Answer: (a)

14.

The average of a batsman in 20 innings is 41 runs. In the next inning, he scored 41 runs. What will be his new average?

(a)

39

(b)

41

(c)

38

(d)

36

Answer: (b)

15.

Aisha and Razia can complete a work in 50 days and 75 days, respectively. In how many days will the entire work be completed if both of them work together?

(a)

32

(b)

25

(c)

30

(d)

28

Answer: (c)

16.

A man sold his cycle at 17% loss. If he had sold it for ₹1,056 more, he would have made 5% profit. The cost price of the cycle is:

(a)

₹4,700

(b)

₹3,800

(c)

₹5,100

(d)

₹4,800

Answer: (d)

17.

Find the HCF of 230, 276, and 322.

(a)

23

(b)

12

(c)

46

(d)

14

Answer: (c)

18.

On simplifying the following expression, we get _____.

$$\frac{24\sqrt{45}-16\sqrt{20}+\sqrt{245}-47\sqrt{5}}{3\frac{1}{5}+1\frac{2}{5}-2\frac{1}{6}-2\frac{1}{5}-5\frac{2}{5}+3\frac{1}{6}}$$

(a)

0

(b)

3

(c)

1

(d)

2

Answer: (a)

19.

The speed of a bus from station A to B is 55 km/h, and while coming back from station B to A, the speed of the bus is 95 km/h. The average speed (in km/h) of the bus during the whole journey is:

(a)

$72\frac{1}{3}$

(b)

$67\frac{1}{3}$

(c)

$62\frac{2}{3}$

(d)

$69\frac{2}{3}$

Answer: (d)

20.

What is the total surface area (in cm^2) of a right circular cone of radius 10.5 cm and slant height 13 cm? Take $\pi = \frac{22}{7}$

(a)

577.5

(b)

757.5

(c)

775.5

(d)

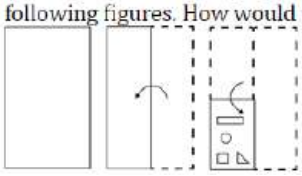
787.5

Answer: (c)

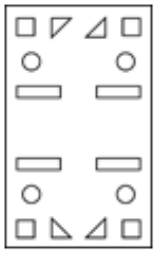
Reasoning Ability and Problem Solving

1.

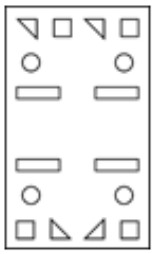
The sequence of folding a piece of paper and the manner in which the folded paper is cut is shown in the following figures. How would this paper look when unfolded?



(a)



(b)



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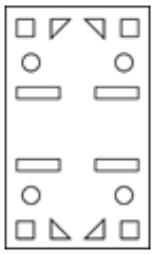
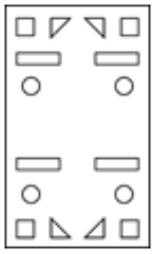


(d)



Answer: (c)

3.

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 pencils are pens. All the pens are inks.
Conclusions:
(I) All the pencils are inks.
(II) Some inks are pencils.

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

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

(c)
Only conclusion (II) is follows.

(d)
Only conclusion (I) is follows.

Answer: (b)

4.

If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '-', what will come in place of the question mark (?) in the following equation?
(54 A 9) C 34 D (10 B 3) C 46 D 16 = ?

(a)
40

(b)
32

(c)
46

(d)
54

Answer: (a)

6.

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

LVF, IUC, FTZ, CSW, ?

(a)
ZRT

(b)
ZQW

(c)
YSX

(d)
YQW

Answer: (a)

7.

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

2 16 86 436 2186 ?

(a)
10578

(b)
11032

(c)
11486

(d)
10936

Answer: (d)

8.

In a certain code language, 'good vibes only' is coded as 'vn mj kl' and 'change is good' is coded as 'mj ro dh'. How is 'good' coded in the given language?

(a)
ro

(b)
dh

(c)
vn

(d)
mj

Answer: (d)

9.

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

JAS, HDV, FGY, DJB, ?

(a)

DNE

(b)

CNF

(c)

BME

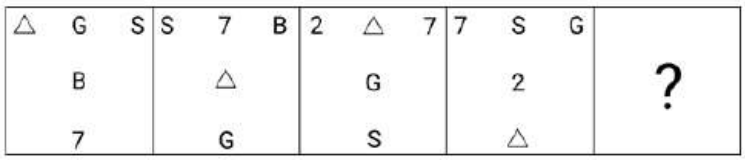
(d)

CMG

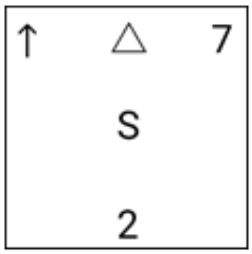
Answer: (c)

10.

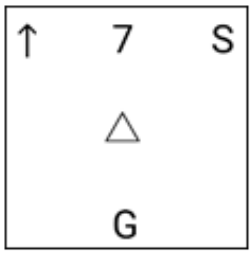
Which figure should replace the question mark (?) if the following figure series were to be continued?



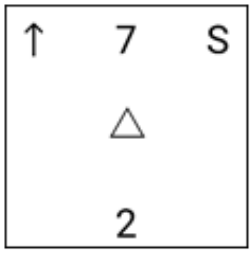
(a)



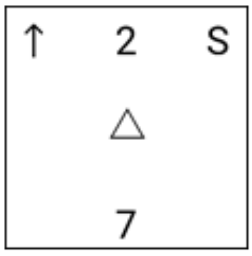
(b)



(c)



(d)



Answer: (d)

11.

The position of how many letters will remain unchanged if each of the letter in the word 'DURATION' is arranged in alphabetical order?

(a)

Four

(b)

None

(c)

Five

(d)

One

Answer: (b)

12.

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 / 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, 7
5, 16

(a)

14, 45

(b)

11, 23

(c)

20, 58

(d)

15, 46

Answer: (d)

13.

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

J _ K _ KKJ _ K _ _ K

(a)

JJKJK

(b)

KJKJK

(c)

JKJKJ

(d)

KJJKJ

Answer: (b)

14.

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 beds are telephones. All telephones are pillows. Some pillows are cupboards.

Conclusion I: Some pillows are telephones.

Conclusion II: Some beds are pillows.

(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: (a)

15.

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

37 36 33 32 29 ?

(a)
28

(b)
26

(c)
27

(d)
24

Answer: (a)

16.

16 is related to 29 following a certain logic. Following the same logic, 85 is related to 98. To which of the following is 53 related to, following the same logic?

(a)
66

(b)
62

(c)
64

(d)
68

Answer: (a)

17.

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

20 54 156 ? 1380 4134 12396

(a)
506

(b)
474

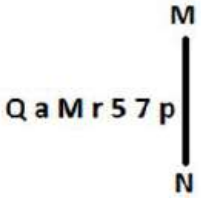
(c)
358

(d)
462

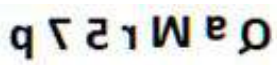
Answer: (d)

18.

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



(a)



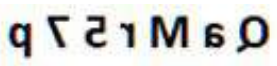
(b)



(c)



(d)



Answer: (d)

19.

Abeer, Bela, Deepa, Farheen, Heera, and Girish are sitting around a circular tab' ing the centre.
Girish sits 2nd to the right of Deepa. Farheen sits to the immediate left of Giris la sits 2nd to the right of Farheen.
Heera is an immediate neighbour of Deepa.
Who sits to the immediate right of Bela?

(a)

Girish

(b)

Deepa

(c)

Heera

(d)

Abeer

Answer: (d)

20.

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

65 A 39 D 3 F 23 C 2 = ?

(a)

64

(b)

32

(c)

56

(d)

42

Answer: (b)

General Awareness

1. The 11th Fundamental Duty provides opportunities for education for the _____ age group of children.

(a) 6-14

(b) 5-15

(c) 2-11

(d) 6-18

Answer: (a)

2. As per the Census of India 2011, which U[illegible]n Te[illegible]ory recorded the lowest population growth rate?

(a) Lakshadweep

(b) Delhi

(c) Daman and Diu

(d) Chandigarh

Answer: (a)

3. In which year were the Arms Act and Vernacular Press Act passed?

(a) 1878

(b) 1879

(c) 1877

(d) 1876

Answer: (a)

4. In which state of India is Kaziranga National Park located?

(a) Assam

(b) Gujarat

(c) Karnataka

(d) West Bengal

Answer: (a)

5.

Whose autobiography is titled 'Ace against Odds'?

(a)

Sania Mirza

(b)

Saina Nehwal

(c)

Mirabai Chanu

(d)

Mary Kom

Answer: (a)

6. By what name are the flat membrane-enclosed sacs present in the Golgi apparatus known?

(a) Lamellae

(b) Cisternae

(c) Cristae

(d) Stroma

Answer: (b)

7. The Swarna Jayanti Shahari Rojgar Yojana (SJSRY) was launched in the year _____ by Government of India.

(a) 1990

(b) 1997

(c) 2010

(d) 2004

Answer: (b)

8.

Manna Dey was a famous personality of India in the field of _____.

(a) Science

(b) Games

(c) Politics

(d) Music

Answer: (d)

9. 'Chapchar Kut' is a festival from the state of _____. It is celebrated during March after the completion of the most arduous task of Jhum operation i.e., jungle clearing (clearing of the remnants of burning).

(a) Mizoram

(b) Nagaland

(c) Jharkhand

(d) Chhattisgarh

Answer: (a)

11. In which of the following States was the 2023 World Squash Championship held?

(a) Kerala
(b) Tamil Nadu
(c) Odisha
(d) Karnataka

Answer: (b)

12. Mumtaz Khan was named 'FIH Women's Rising Star of the Year' in 2022. She plays which of the following sports?

(a) Hockey
(b) Fencing
(c) Football
(d) High Jump

Answer: (a)

13. Which of the following is a common financial service provided by Micro Finance Institutions?

(a) Mortgage loans for luxury homes
(b) Investment advisory services for high-net-worth individuals
(c) Credit card issuance
(d) Small loans to low-income individuals for entrepreneurial activities

Answer: (d)

14. The Rathwas, who dwell in the state of _____ erform the Rathwa dance on the occasion of Holi (festival of colours).

(a) Andhra Pradesh
(b) Telangana
(c) Maharashtra
(d) Gujarat

Answer: (d)

15. Which Article of the Constitution of India provides for a governor for each state?

(a) Article 173
(b) Article 157
(c) Article 153
(d) Article 156

Answer: (c)

16. Who was the first Woman President of Indian National Congress?

(a) Sarojini Naidu
(b) Asaf Ali
(c) Annie Besant
(d) Usha Mehta

Answer: (c)

17. _____ was a star of the Kathak dance form described as 'Nritya Samragini' (the empress of dance) by Rabindranath Tagore.

(a) Sitara Devi
(b) Rukmini Devi Arundale
(c) Mrinalini Sarabhai
(d) Mallika Sarabhai

Answer: (a)

18. Which of the following methods is used to calculate national income by summing up the total spending on final goods and services in an economy?

(a) Value-added method
(b) Output method
(c) Expenditure method
(d) Income method

Answer: (c)

19. Former Governor of Jharkhand from the year 2004 to 2009, _____, passed away in Lucknow in 2022.

(a) Ramesh Bais
(b) Syed Ahmed
(c) Syed Sibtey Razi
(d) Kateekal Sankaranarayanan

Answer: (c)

20. According to the IUPAC nomenclature system, which functional group is characterised by the presence of a –OH group, usually in a water-insoluble shape?

(a) Carbonyls
(b) Amines
(c) Alcohols
(d) Esters

Answer: (c)

21. Ajmer Sharif is the shrine of which of the following Sufi saints?

(a) Mohammad Ghori
(b) Mohammad Bin Tughlaq
(c) Khwaja Moinuddin Chishti
(d) Bhaktiyar Khilji

Answer: (c)

22.

Whose autobiography is titled as 'Wings of Fire: An Autobiography'?

(a)

E Sreedharan

(b)

APJ Abdul Kalam

(c)

Rajender Singh

(d)

Satyabhama Das Biju

Answer: (b)

23. Which of the following Carnatic musicians was the first to receive the Bharat Ratna?

(a) Tyagaraja

(b) MS Subbulakshmi

(c) Syama Sastri

(d) KJ Yesudas

Answer: (b)

24. Which of the following is the highest navigable lak ı the world?

(a) Huron

(b) Titicaca

(c) Superior

(d) Como

Answer: (b)

25.

Rukmini Devi Arundale was associated with which Indian classical dance form?

(a)

Manipuri

(b)

Kathak

(c)

Bharatanatyam

(d)

Mohiniyattam

Answer: (c)

English Language and Comprehension

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

He felt priviledged to have received the country's greatest honour.

(a) previllaged
(b) privileged
(c) privilegede
(d) privilaged

Answer: (b)

2. Select the option that can be used as a one-word substitute for the underlined segment in the following sentence. Hundreds of people were removed from a place by the government recently due to a war-like situation.

(a) assassinated
(b) evacuated
(c) invaded
(d) terminated

Answer: (b)

3. Select the most appropriate meaning of the underlined idiom in the following sentence.

Buying a home in the city centre will cost you an arm and a leg.

(a) Nothing extra
(b) A large amount of money
(c) A small amount of money
(d) Physical pain

Answer: (b)

4. Select the option that can be used as a one-word substitute for the given group of words. One who has love for mankind OR One who makes an active effort to promote human welfare

(a) Philosopher
(b) Patriot
(c) Autocrat
(d) Philanthropist

Answer: (d)

5. Select the most appropriate meaning of the given idiom. From scratch

(a) From a skin disease
(b) From the beginning
(c) From utter disorder
(d) From death

Answer: (b)

6. The following sentence has been divided into four parts. Identify the part that contains an error.
(A) Four divided by /
(B) two is coming /
(C) out to /
(D) be two.

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

Answer: (c)

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

The detective went the whole nine yards in his investigation.

(a) Measuring every step
(b) Everything, all the way
(c) Close affinity with the law
(d) Taking the distant call

Answer: (b)

8. Select the most appropriate option to fill in the blank. Many soldiers marched in _____ at the international border.

(a) dress
(b) uniform
(c) fabric
(d) clothes

Answer: (b)

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

This scripture / has been /translated in / seventy languages.

(a) seventy languages
(b) This scripture
(c) has been
(d) translated in

Answer: (d)

10. Select the sentence that has NO spelling errors.

(a) The elderly woman was delighted to receive a bouquet of fragrant flowers from her thoughtful grandson, who had come to visit her at the nursing home

(b) The elderly woman was delighted to receive a bouque of fragrant flowers from her thoughtfull grandson, who had come to visit her at the nursing home

(c) The elderly woman was deligted to receive a bouque of fregrant flowers from her thoughtful grandson, who had come to visit her at the nursing home

(d) The elderly woman was delighed to recive a bouquet of fragrant flowers from her thoughtfull grandson, who had come to visit her at the nursing home

Answer: (a)

11. Select the most appropriate option to fill in the blank.

She was known for her _____ attention to detail, always making sure everything was perfectly organised and in its proper place.

(a) fastidious

(b) scornful

(c) tedious

(d) exact

Answer: (a)

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

The killing of a king

(a) Regicide

(b) Fratricide

(c) Sororicide

(d) Patricide

Answer: (a)

13. Select the most appropriate option to fill in the blanks. (Ø = No article) ____ doctor suggested doing some eye exercises and wearing ____ pair of powered glasses.

(a) A; a

(b) Ø; a

(c) A; Ø

(d) The; a

Answer: (d)

14. Parts of the following sentence have been given as options. Select the option that contains an error. They have less books than I have.

(a) I have

(b) They have

(c) than

(d) less books

Answer: (d)

15. Select the most appropriate meaning of the given idiom. Into hot water

(a) Not on good terms

(b) In favour with

(c) Came to nothing

(d) Into trouble

Answer: (d)

16. Select the most appropriate synonym of the bracketed word in the following sentence to fill in the blank. The sun was setting over the mountains, painting the sky with _____(energetic) shades of orange and pink.

(a) vibrant

(b) reactive

(c) faded

(d) bright

Answer: (a)

17. The following sentence has been split into four segments. Identify the segment that contains an error. She was writing / a letter to her grandmother / when the power / gone out.

(a) gone out

(b) a letter to her grandmother

(c) She was writing

(d) when the power

Answer: (a)

18. Select the most appropriate ANTONYM of the given word. Nonchalant

(a) Flexible

(b) Caring

(c) Marvellous

(d) Covert

Answer: (b)

19. Select the most appropriate synonym of the given word. Grief

(a) Pleasure

(b) Jollity

(c) Pain

(d) Content

Answer: (c)

20. There is a spelling error in the given sentence. Select the option that contains the INCORRECTLY spelt word. The profesor’s niece was planning a pleasant surprise for him.

(a) profesor

(b) planning

(c) pleasant

(d) niece

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. Tim Cook, CEO of Apple who has recently _____(1) India, has some _____ (2) for parents: limit the screen time for children. He says: "Kids are born _____ (3), they're digital kids now. And it is, I think, important to set some hard rails around it." Various surveys of Indian children show alarming findings. A Saurashtra University survey of _____ (4) a thousand children and their parents in Rajkot finds that 92% students prefer playing mobile games over playing outside and 78% students _____ (5) to having their phone while having meals. In another survey by Local Circles, nearly 55% of parents admit that their children aged 9-13 have access to a smartphone throughout the day.

21. Select the most appropriate option to fill in blank number 1.
    (a) visiting
    (b) visited
    (c) visit
    (d) visits

    Answer: (b)

22. Select the most appropriate option to fill in blank number 2.
    (a) suggesting
    (b) advise
    (c) suggest
    (d) advice

    Answer: (d)

23. Select the most appropriate option to fill in blank number 3.
    (a) digitally
    (b) digitalise
    (c) digital
    (d) digitalised

    Answer: (c)

24. Select the most appropriate option to fill in blank number 4.
    (a) closer than
    (b) bigger than
    (c) above than
    (d) more than

    Answer: (d)

25. Select the most appropriate option to fill in blank number 5.
    (a) habituated
    (b) habituating
    (c) will be habituating
    (d) are habituated

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

Reasoning Ability and Problem Solving

1	**(c)**	3	**(b)**	4	**(a)**	6	**(a)**	7	**(d)**	8	**(d)**
9	**(c)**	10	**(d)**	11	**(b)**	12	**(d)**	13	**(b)**	14	**(a)**
15	**(a)**	16	**(a)**	17	**(d)**	18	**(d)**	19	**(d)**	20	**(b)**

General Awareness

1	**(a)**	2	**(a)**	3	**(a)**	4	**(a)**	5	**(a)**	6	**(b)**
7	**(b)**	8	**(d)**	9	**(a)**	11	**(b)**	12	**(a)**	13	**(d)**
14	**(d)**	15	**(c)**	16	**(c)**	17	**(a)**	18	**(c)**	19	**(c)**
20	**(c)**	21	**(c)**	22	**(b)**	23	**(b)**	24	**(b)**	25	**(c)**

English Language and Comprehension

1	**(b)**	2	**(b)**	3	**(b)**	4	**(d)**	5	**(b)**	6	**(c)**
7	**(b)**	8	**(b)**	9	**(d)**	10	**(a)**	11	**(a)**	12	**(a)**
13	**(d)**	14	**(d)**	15	**(d)**	16	**(a)**	17	**(a)**	18	**(b)**
19	**(c)**	20	**(a)**	21	**(b)**	22	**(d)**	23	**(c)**	24	**(d)**
25	**(d)**										