

Sample Paper

Class 10

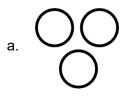
Unicus Critical Thinking Olympiad (UCTO)



Section	Total Questions	Marks per Questions	Total Marks	
Classic Section	40	1	40	
Scholar Section	10	2	20	
Grand Total	50		60	

Classic Section (Each Question is 1 Mark)

1. Which of the following diagrams indicates the best relation between classroom, blackboard and school?











2. In this question, the relationship between different elements is shown in the statements. The statements are followed by two conclusions:

Statements: $P < Q > T, R \ge Q$ Conclusions: I. R > P; II. T < R

- a. Only conclusion I is true
- c. Both conclusions I and II are true
- b. Only conclusion II is true
- d. Neither conclusion I nor II is true
- 3. In the following series, replace the question mark (?) with the suitable option:

7, 9, 13, 21, 37, ?

a. 58

c. 63

- b. 63
- d. 72
- 4. In the following letter series, some of the letters are missing which are given in that order as one of the alternatives below it. Select the correct alternatives:

a_ba_c_aad_aa_ea

a. Babbb c. babbc

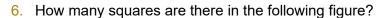
- b. babbd
- d. bacde
- 5. In the question below, is given a statement followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. You have to consider the statement and the assumptions and decide which of the assumption(s) is/are implicit in the statement.

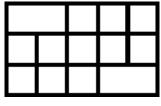
Statement: The Government has decided to provide monetary relief to the farmers in the drought-hit areas.

Assumptions:

- I. The farmers of the affected areas may accept Government relief.
- II. The Government machinery may be able to reach the affected farmers to provide relief.

- a. Only assumption I is implicit
- b. Only assumption II is implicit
- c. Either assumption I or assumption II is implicit
- d. Both assumption I and assumption II are implicit





- a. 10
- c. 14

- b. 16
- d. 19
- 7. In a code language, the word STAG is coded as FGZT, HORN as SLIM. Using the same coding, how can NORTH be written?
 - a. NLGMI

b. MLIGS

c. MGLIS

- d. NLGIS
- 8. In the following question, find out the correct option which will make an appropriate analogical relationship between the two numbers to the left of the sign of double colon (::) and the same relationship between, the two numbers to the right of the sign of double colon (::):

- a. 63
- c. 126

- b. 65
- d. 124
- 9. In the following letter series, some of the letters are missing which are given in that order as one of the alternatives below it. Select the correct alternative:

a. abbab

b. abaaa

c. aabba

d. abbaa

10. From the given suitable options find the water image of the object given in the question figure:



a.



C.



b.

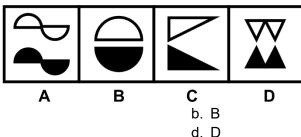


d.



- 11. Pointing towards a photograph, David said, "She is the mother of my brother's son's wife's sister". How is the lady in the photograph related to David's brother?
 - a. Sister
 - c. Daughter

- b. Daughter-in-law
- d. None of these
- 12. In the following question, four figures are given. Three are similar in a certain way and so form a group. Find out which one of the figures does not belong to that group:



- a. A
- c. C

- 13. If $9 \times 7 = 32$, $13 \times 7 = 120$ and $17 \times 9 = 208$, then $19 \times 11 = ?$
 - a. 64

b. 160

c. 240

- d. 210
- 14. Study the given relationship and complete the following analogies from the two sets of options given:
 - Gun is to (i), as Microscope is to (ii)
 - (i) [A] Grind, [B] Shoot, [C] Write, [D] Cut
 - (ii) [W] Sew, [X] Feed, [Y] Magnify, [Z] Dig
 - a. BW

b. BZ

c. BY

d. DY

- 15. A is the uncle of B, who is the daughter of C and C is the daughter-in-law of P. How is A related to P?
 - a. Brother
 - c. Father

- b. Son
- d. Uncle
- 16. Find the wrong term in the given series: 1CV, 5FU, 9IT, 15LS, 17OR
 - a. 170R
 - c. 5FU

- b. 9IT
- d. 15LS
- 17. How many such pairs of letters are there in the word STREAMING each of which has as many letters between the word, as in the English alphabet? (In both forward and backwards directions)
 - a. 1
 - c. 3

- b. 2
- d. None
- 18. If $5 \times 3 \times 9 = 395$ and $9 \times 7 \times 5 = 759$, then $7 \times 6 \times 4 = ?$
 - a. 676
 - c. 647

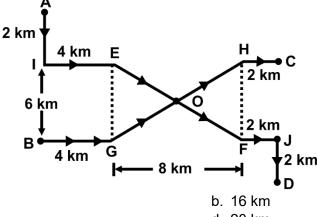
- b. 476
- d. 764
- 19. If North-East becomes South-East, then North-West becomes:
 - a. South-West

b. North-East

c. South-East

- d. North
- 20. Study the figure below showing a map of interconnected roads and answer the following question:

In the map, O is the intersection of roads AD, BC and O is also the midpoint of roads GH and EF. If Rahul starts from point A and reaches point D, then the total distance travelled by Rahul is:

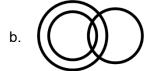


- a. 22 km
- c. 8 km

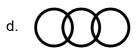
d. 20 km

21. In the following question, three groups of items are given. These may or may not have any relation amongst themselves. Choose the options, that represents the correct logical relationship among the three groups.
India, Nepal and Asia









22. Select the answer figure in which the question figure is embedded:



a. | | ____



c.



23. Select the answer figure in which the question figure is embedded:



a.







C.



d



24. Select the answer figure in which the question figure is embedded:







b.



d.



25. Select the answer figure in which the question figure is embedded:













26. Which one set of letters, when sequentially placed at the gaps in the given letter series, shall complete it?

- a. BABY
- c. BYBY

- b. BBAB
- d. BBBY

27. Which one set of letters, when sequentially placed at the gaps in the given letter series, shall complete it?

- a. LBD c. DBL

- b. BLD
- d. BDL

28. Select the option figure which satisfies the same conditions of the placement of dots as in the question figure:





c.

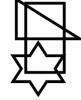


d.



29. Select the option figure which satisfies the same conditions of the placement of dots as in the question figure:







b.





30. A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: 42 baby dolly 49 6 east 16 them output 100 shout 8 pond 4 jungle

Step I: baby 4 42 dolly 49 6 east 16 them output 100 shout 8 pond jungle

Step II: baby 4 dolly 6 42 49 east 16 them output 100 shout 8 pond jungle

Step III: baby 4 dolly 6 east 16 42 49 them output 100 shout 8 pond jungle

Step IV: baby 4 dolly 6 east 16 jungle 8 42 49 them output 100 shout pond

Step V: baby 4 dolly 6 east 16 jungle 8 output 49 42 them 100 shout pond

Step VI: baby 4 dolly 6 east 16 jungle 8 output 49 pond 42 them 100 shout

Step VII: baby 4 dolly 6 east 16 jungle 8 output 49 pond 42 shout 100 them

Step VII is the last step of the above input; as the desired arrangement is obtained. As per rules followed in the above steps, find out in the following question the appropriate step for the given input.

Input: ink 17 silent 121 beast 15 49 Goal 9 power 64 3 food 20 weed

Which of the following will be Step IV?

- a. beast 9 food 3 Goal 49 ink15 power 64 17 silent 121 20 weed
- b. beast 9 food 3 Goal 49 17 silent 121 15 ink power 64 20 weed
- c. beast 9 food 3 Goal 49 ink 15 17 silent 121 power 64 20 weed
- d. beast 9 food 3 ink 49 Goal 15 silent 17 121 power 64 20 weed
- 31. How many such pairs of letters are there in the word "GEOGRAPHY" which has as many letters between them as there are in the English alphabetical series?
 - a. One

b. Three

c. Two

- d. More than three
- 32. How many such unique letters are there in the word "REBELLION" which has odd place values in the alphabet series?
 - a. Three

b. Four

c. Five

- d. Six
- 33. Arrange the following words in the same order as found in the dictionary:
 - 1. Dome
 - 2. Doughnut
 - 3. Double
 - 4. Document
 - 5. Dog
 - a. 45132

b. 31245

c. 32145

- d. 31425
- 34. Answer the following question based on the arrangement given below:

 Select the correct option that will come in place of the question mark in the following series:



a. 5R+

b. RI9

c. %+V

- d. %9X
- 35. How many rectangles are there in the following figure?

a. 5c. 6

b. 7

d. 4

36. How many triangles are there in the given figure?



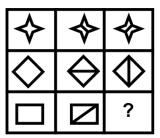
a. 12

c. 10

b. 14

d. 8

37. Select an appropriate figure from the given alternatives that would complete the figure matrix:



a. /

;. [



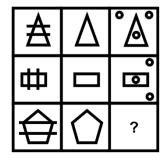
b.

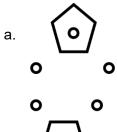


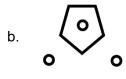
d.



38. Select an appropriate figure from the given alternatives that would complete the figure matrix:











39. Select an appropriate figure from the given alternatives that would complete the figure matrix:

Α	ı	٧
E	=	-
Т	1	?

а.

b.

с.

d.

40. If in a certain code, BAT = 23 and CAT = 24, then how will you code BALL?

a. 27

c. 32

b. 28

d. 120

Scholar Section (Each Question is 2 Marks)

41. If in a certain code language 'how old are you' is written as 'ko to po ha' and 'you are very beautiful' is written as 'na po da to', then how will 'how' be written in that language?

a. ko

b. ha

c. 'ko' or 'ha'

d. Data inadequate

42. In making decisions about an important question, it is desirable to be able to distinguish between 'strong' arguments and 'weak' arguments. 'Strong' arguments are those which are both important and directly related to the question. 'Weak' arguments are those which are of minor importance and also may not be directly related to the question or may be related to a trivial aspect of the question. The question below is followed by two arguments numbered I

and II. You have to decide which of the arguments is a 'strong' argument and which is a 'weak' argument.

Statement: Should there be uniforms for students in the colleges in India as in the schools? **Arguments:**

- **I.** Yes, this will improve the ambience of the colleges as all the students will be decently dressed.
- II. No, college students should not be regimented and they should be left to choose their clothes for coming to college.
- a. Only argument I is strong.
- c. Either argument I or II is strong.
- b. Only argument II is strong.
- d. Both argument I and II are strong.
- 43. In a certain code, 'LATE' is written as 'VGZO'. How will 'SHINE' be written in that same code?
 - a. VRMSH

b. VMSHR

c. VMRSH

- d. MVRSH
- 44. This question has a statement followed by two Conclusions I and II. Consider the statement and the following conclusions. Decide which of the conclusion follows from the given statement:

Statement- A man must be wise to be a good wrangler. Good wranglers are talkative and boring.

Conclusions:

- I. All the wise-persons are boring.
- II. All the wise-persons are good wranglers.
- a. Conclusion I follows

- b. Conclusion II follows
- c. Either conclusion I or II follows
- d. Neither conclusion I nor II follows
- 45. Read the following information carefully and answer the question given below: Ron and Kate like hockey and volleyball. Sam and Ron likes hockey and badminton. George and Kate like chess and volleyball. Sam, George and Kapil like football and badminton. Who likes chess, hockey and volleyball?

a. Sam

b. Kanika

c. Ron

d. George

- 46. Read the following information carefully and answer the question given below: Four youngmen Alen, Mike, Peter and Leo are lovingly called Harry, Richard, Prince and Stuart by everyone. They are married to Kim, Arya, Rose and Pam.
 - 1. Pam and Kim are neither married to Peter or Alen nor their husband is called Richard.
 - 2. Richard is not married to Arya and his name is not Peter
 - 3. Arya is not married to Harry.
 - 4. Mike is neither Harry nor Prince and is not married to Kim.

What is the nickname of Mike?

a. Richard

b. Stuart

c. Harry

d. Prince

47. Reema is the niece of Aman. Suman is the mother of Aman. Kanika is the mother of Suman. Harish is husband of Kanika. Kavya is the mother-in-law of Harish. How is Reema related to Harish?

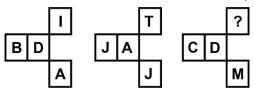
a. Daughter

b. Great granddaughter

c. Niece

d. Great grandson's daughter

48. In the following question, determine the number/letters that replaces the question mark:



a. W

b. Y

c. V

d. Z

49. A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: 29 own 18 down 37 13 low east 46 pick 26 alarm

Step I: alarm 42 29 own 18 down 13 low east 46 pick 26

Step II: alarm 42 east 34 own 18 down 13 low 46 pick 26

Step III: alarm 42 east 34 own 18 18 down low 46 pick 26

Step IV: alarm 42 east 34 own 18 pick 13 down low 46 26

Step V: alarm 42 east 34 own 18 pick 13 low 21 down 46

Step VI: alarm 42 east 34 own 18 pick 13 low 21 down 41

Step VI is the last step of the above arrangement.

As per the rules followed in the steps given above, find out in the following question the appropriate step for the given input.

Input: 28 upon 19 flow 41 38 India melt 16 eat cream 31 quick

Which step number should be the following output?

"eat 48 India 36 upon 24 quick 13 melt 27 flow cream 38"

a. Step VI

b. Step IV

c. Step V

d. There will be no such step

50. Answer the question based on the following arrangement:

R4PIJMQ3%T@©UK5V1W\$Y2BE6#9DH8G*ZN

What should come in place of question mark (?) in the following series based on the above arrangement?

IM3 @U5 WYB?

a. 69H

b. 6#9

c. #D8

d. #9D

Answer Key

1.	d	2.	С	3.	С	4.	d	5.	d	6.	d	7.	b
8.	b	9.	d	10.	d	11.	d	12.	а	13.	С	14.	С
15.	b	16.	d	17.	С	18.	С	19.	b	20.	d	21.	С
22.	d	23.	С	24.	b	25.	b	26.	а	27.	С	28.	d
29.	b	30.	С	31.	b	32.	а	33.	а	34.	С	35.	С
36.	а	37.	b	38.	а	39.	b	40.	а	41.	С	42.	d
43.	С	44.	d	45.	b	46.	b	47.	b	48.	b	49.	d
50.	С												