EXAMINATION QUESTION BOOKLET

Duration: 90 minutes

Roll No.: Answer Sheet No.

Name of Candidate

Signature of candidate

Instructions for Candidate

This booklet consists of 100 Multiple choice questions. Each question has 4 (four) alternatives (A), (B), (C), and (D). In any case only one alternative will be the correct answer. Choose the right alternative and darken the appropriate circle in the answer sheet in front of the related question.

For each correct answer One mark will be given and for each incorrect answer 0.25 mark will be deducted.

Use Black/Blue ball point Pen to darken the circle. Answer once darkened is not allowed to be erased or altered. Against any question if more than one circle is darkened, machine will allot zero mark for that question.

In OMR answer sheet candidate must fill up all required information and for this candidate must darken the appropriate circle. The OMR Answer sheet will not be evaluated if the candidate fails to fill up the required circles correctly as per the given directions.

Read the instructions printed on Answer sheet carefully before filling the information on the answer Sheet. Do not fold answer sheet in any case.

Before beginning to answer the questions please make sure that all entries on OMR answer-sheet and Test Question booklet have been duly completed.

Candidate should not leave the examination hall/room without handing over his Answer sheet to the invigilator and without signing on the attendance sheet. Failing in doing so, will amount to disqualification.

After receiving the instruction to open the booklet and before answering the questions, the candidate should ensure that the Question booklet is complete.

Note: In case of discrepancy in Hindi language, English version will be treated as final.

नोट : परीक्षा पुस्तिका के हिंदी संस्करण में यदि कोई विस्माति पाई जाती है, तो अंग्रेजी संस्करण मान्य होगा।

JAB TAK AAPSE KAHAM JANAE TAK PRAJAN-PUSTIKAH N KHORE

DO NOT OPEN THE QUESTION BOOKLET UNTIL YOU ARE TOLD TO DO SO.
### GENERAL APTITUDE AND NUMERIC ABILITY

**Directions for Q.1 to Q.5:** Find the odd-man out:

प्रश्न संख्या 1–5 के लिए निर्देश: असामान्य विकल्प को चुनें

<table>
<thead>
<tr>
<th></th>
<th>(A) ring</th>
<th>(B) bangle</th>
<th>(C) tyre</th>
<th>(D) plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(A) अंगूठी</td>
<td>(B) चूड़ी</td>
<td>(C) तात्स</td>
<td>(D) प्लेट</td>
</tr>
<tr>
<td>2</td>
<td>(A) nails</td>
<td>(B) hair</td>
<td>(C) grass</td>
<td>(D) fingers</td>
</tr>
<tr>
<td></td>
<td>(A) गूड़ी</td>
<td>(B) बाल</td>
<td>(C) धार</td>
<td>(D) उंगलियाँ</td>
</tr>
<tr>
<td>3</td>
<td>(A) KOM</td>
<td>(B) UYW</td>
<td>(C) FJH</td>
<td>(D) DGF</td>
</tr>
<tr>
<td>4</td>
<td>(A) JFB</td>
<td>(B) TPL</td>
<td>(C) VRM</td>
<td>(D) LHD</td>
</tr>
<tr>
<td>5</td>
<td>(A) TQR</td>
<td>(B) PLM</td>
<td>(C) DAB</td>
<td>(D) XUV</td>
</tr>
</tbody>
</table>

**Directions for Q.6 to Q.11:** The questions are based on the information provided below:

प्रश्न संख्या 6–11 के लिए निर्देश: प्रश्न निम्नलिखित सूचना पर आधारित है।

Eight fighter pilots flying over a conflict region notice some hostile activity taking place in a village. To peacefully resolve the conflict, they land their planes and decide that it would be best to send those pilots who would best complement each other as negotiators to talk to the warring parties. The pilots A, B, C, D, E, F, G, and H are chosen as negotiators according to the following conditions:

I. A is chosen if B is chosen.
II. If G is not chosen, then A and F are chosen.
III. B and H are chosen if A is chosen.

IV. If F is not chosen, then G is chosen.
V. If H is not chosen, then E is chosen.
VI. If C is not chosen, then D is not chosen, and if D is not chosen, then C is not chosen.

आठ लड़ाकू पायलट संघर्ष क्षेत्र के किसी प्रांभ में कुछ पतिव्रता को नियंत्रित करते हैं। पायलटों को शारीरिक तरीके से सुलझाने के लिए वे अपने हवाई जहाज को उड़ाते हैं और चैनलों के लिए कि समझने हुए पार्टियों से वादावीत्त करने के लिए उन पायलटों को भेजा जाया जो वार्ता विकास के रूप में एक दूसरे को प्रतिपुर्तित करते हैं। पायलट A, B, C, D, E, F, G और H वार्ता विकास के रूप में निम्न शर्तों पर चुने जाते हैं:

I. अगर A चुना जाता है तो B नहीं चुना जाता है
II. अगर G नहीं चुना जाता है तो A और F चुने जाते है
III. B और H चुने जाते है, अगर A चुना जाता है
IV. अगर F नहीं चुना जाता है तो G चुना जाता है
V. अगर H नहीं चुना जाता है तो E चुना जाता है
VI. अगर C नहीं चुना जाता है तो D नहीं चुना जाता और अगर D का चयन नहीं होता तो C नहीं चुना जाता है

6. Which of the following could be a complete group of the negotiators?

निम्नलिखित में से कौन से वार्ता करके पायलटों का पूरा दल बन सकता है?

(A) F, A, H, B  (B) G, D, C  (C) E, A, H, F  (D) A, B, F, G

7. Who could be sent to negotiate alone?

(A) G  (B) A  (C) C  (D) None of the above

किसी अकेले वार्ता करने के लिए निर्देश स्थित था?

(A) G  (B) A  (C) C  (D) इनमें से कोई नहीं

8. What is the greatest number of pilots that could be sent to negotiate?

पायलटों की सबसे अधिक संख्या क्या है, जो वार्ता के लिए निर्देश स्थित है?

(A) 5  (B) 6  (C) 7  (D) 8

Space For Rough Work

**SC - D - A**
9. If G is not sent to negotiate, then which of the following is a complete and accurate list of pilots who must be sent to negotiate?

(A) F, A, E, H, B  
(B) A, B, H, F  
(C) H, B, A, C, D  
(D) H, C, D, B, A, F

10. If H is not sent to negotiate, then which of the following must NOT be true?

(A) F is sent to negotiate.  
(B) E is sent to negotiate.  
(C) B is sent to negotiate.  
(D) G is sent to negotiate.

11. Which pair of pilots cannot be sent to negotiate if B does not negotiate?

(A) A and H  
(B) G and F  
(C) E and H  
(D) G and E

- Directions for Q.12 to Q.17: The questions are based on the information provided below:

A number of dacoits need to hole up in their hideout. The problem is that, as with many criminal groups, there are a number of personality conflicts that disallow certain members of the dacoit group from being in the hideout at the same time as certain other members. The personality issues of the bandits A, B, C, D, E, F, G, and H are illuminated by the following constraints:

I. If D is in the hideout, then E is in the hideout.  
II. If F is not in the hideout, then A is in the hideout.  
III. If B is not in the hideout, then C is not in the hideout.  
IV. If F is in the hideout, then H is not in the hideout.  
V. If A is not in the hideout, then B is in the hideout.

12. Which of the following could be a complete list of the bandits in the hideout?

(A) A, E, F, H  
(B) F, D, C, B  
(C) E, H, D, A  
(D) H, B, E, C, F

13. Who could be the only person in the hideout?

(A) A  
(B) B  
(C) E  
(D) H

14. If there are seven people in the hideout, then who could potentially be outside of the hideout?

(A) G  
(B) F  
(C) A  
(D) D
15. If A is not in the hideout, then which of the following must be true?
(A) D is not in the hideout.
(B) E is not in the hideout.
(C) B must be in the hideout.
(D) C is not in the hideout.

अगर A ठिकाने में नहीं है तो निम्न में से कौन सा कथन सत्य है?
(A) D ठिकाने में नहीं है
(B) E ठिकाने में नहीं है
(C) B ठिकाने में होना चाहिए
(D) C ठिकाने में नहीं है।

16. If D and C are in the hideout, then who could be outside of the hideout?
(A) A and E
(B) B and G
(C) E and B
(D) H and F

अगर D और C ठिकाने में हैं, तो कौन ठिकाने के बाहर हो सकता है?
(A) A और E
(B) B और G
(C) E और B
(D) H और F

17. If F must be in the hideout when A or B is in the hideout, then which of the following must be true?
(A) C is never outside of the hideout.
(B) C and B are always in the hideout.
(C) H is never in the hideout.
(D) D and E are always in the hideout.

अगर F को ठिकाने में होना चाहिए तब A और B ठिकाने में हैं, तब इनमें से कौन सा कथन सत्य होगा?
(A) C ठिकाने के बाहर कभी नहीं है
(B) C और B ठिकाने में होमा से रहे हैं
(C) H ठिकाने में कभी नहीं है
(D) D और E ठिकाने में होमा से रहे हैं

18. Which of the following could be a complete list of the sheep outside of the pasture?
(A) Dhuli, Chotu, Arti, Heera.
(B) Bholu, Dhuli, Itti, Arti.
(C) Itti, Golu, Esha.
(D) Golu, Arti, Itti.

Directions for Q.18 to Q.23: The questions are based on the information provided below:

As Sumit closes his eyes to go to sleep, he visualizes nine sheep jumping over a fence. The sheep’s names are Arti, Bholu, Chotu, Dhuli, Esha, Fallu, Golu, Heera, and Itti. The sheep are either in the pasture or outside of the pasture based on whether or not they have jumped over the fence. Their presence is governed by the following constraints:

I. If Golu is in the pasture, then Dhuli is out.
II. If Fallu is in the pasture, then Arti is out.
III. Itti is in the pasture if Fallu is out.
IV. Dhuli is in the pasture if Chotu is in.
V. Esha is in the pasture if Bholu is out.
VI. Heera is outside of the pasture.
VII. If Golu is outside of the pasture, then Esha is out.

जैसे ही सुनिता आँख बंद कर सोने जाता है, वह नीचे में नामों को एक दीवार पार कर देखता है। नामों के नाम Bholu, Chotu, Dhuli, Esha, Fallu, Golu, Heera, और Itti हैं। में या तो चारागाह के बाहर हैं या बाहर हैं। जो कि उनके दीवार पार करने के उपर निर्धारित हैं। उनकी उपस्थिति निर्धारित शर्तों का पालन करती हैं।
I. अगर Golu चारागाह में है तो धूली चारागाह के बाहर है।
II. अगर Golu चारागाह में है तो आसी बाहर है।
III. इति चारागाह में है यदि पर लू चारागाह के बाहर है।
IV. लू चारागाह में है यदि छोटू, अन्दर है।
V. ईशा चारागाह में है यदि मोला बाहर है।
VI. ईशा चारागाह के बाहर है।
VII. यदि Golu चारागाह के बाहर है तो ईशा भी बाहर है।

18. Which of the following could be a complete list of the sheep outside of the pasture?
(A) Dhuli, Chotu, Arti, Heera.
(B) Bholu, Dhuli, Itti, Arti.
(C) Itti, Golu, Esha.
(D) Golu, Arti, Itti.
19. If Golu is in the pasture, then which of the following must be true?
(A) Itti is in the pasture.
(B) Bhola is outside of the pasture.
(C) Chotu is outside of the pasture.
(D) Fallu is in the pasture.

20. Which of the following pairs can never be in the pasture at the same time?
(A) Fallu, Itti.
(B) Esha, Bhola.
(C) Dhuli, Chotu.
(D) Chotu, Esha.

21. You will know the exact position of all the sheep if you know that which two sheep are in the pasture?
(A) Itti, Bhola.
(B) Dhuli, Esha.
(C) Arti, Chotu.
(D) Itti, Arti.

22. At most, how many sheep could be outside of the pasture at the same time?
(A) five
(B) six
(C) seven
(D) eight

23. At most, how many sheep could be in the pasture at the same time?
(A) four
(B) five
(C) six
(D) seven

Directions for Q.24 to Q.28: Read the following passage carefully and choose the most appropriate option.

Five roommates Randy, Sally, Terry, Uma, and Vernon each do one housekeeping task (mopping, sweeping, laundry, vacuuming, or dusting) one day a week, Monday through Friday.

- Vernon does not vacuum and does not do his task on Tuesday.
- Sally does the dusting, and does not do it on Monday or Friday.
- The mopping is done on Thursday.
- Terry does his task, which is not vacuuming, on Wednesday.
- The laundry is done on Friday, and not by Uma.
- Randy does his task on Monday.

Space For Rough Work
24. What task does Terry do on Wednesday?
(A) vacuuming  (B) dusting  
(C) mopping  (D) sweeping

Terry does (C) mopping on Wednesday.

25. What day does Uma do her task?
(A) Monday  (B) Tuesday  
(C) Wednesday  (D) Thursday

Uma does (B) Tuesday.

26. What task does Vernon do?
(A) vacuuming  (B) dusting  
(C) mopping  (D) laundry

Vernon does (C) mopping.

27. What day is the vacuuming done?
(A) Friday  (B) Monday  
(C) Tuesday  (D) Wednesday

The vacuuming is done on (A) Friday.

28. When does Sally do the dusting?
(A) Friday  (B) Monday  
(C) Tuesday  (D) Wednesday

Sally does the dusting on (C) Tuesday.

Directions for Q.29 to Q.34: The questions are based on the information provided below:

From a group of seven people – J, K, L, M, N, P and Q – exactly four will be selected to attend a diplomat’s retirement dinner. Selection must conform to the following conditions:

I. Either J or K must be selected, but J and K cannot both be selected.
II. Either N or P must be selected, but N and P cannot both be selected.
III. N cannot be selected unless L is selected.
IV. Q cannot be selected unless K is selected.

Space For Rough Work
29. Which one of the following could be the four people selected to attend the retirement dinner?

(A) J, K, M, P  (B) J, L, N, Q
(C) J, M, N, Q  (D) K, M, P, Q

30. Among the people selected to attend the retirement dinner there must be

(A) K or Q or both  (B) L or M or both
(C) N or M or both  (D) N or Q or both

(A) K or Q or both  (B) L or M or both
(C) N or M or both  (D) N or Q or both

31. Which one of the following is a pair of people who cannot both be selected to attend the retirement dinner?

(A) J and N  (B) J and Q
(C) K and L  (D) K and N

32. If M is not selected to attend the retirement dinner, the four people selected to attend must include which one of the following pairs of people?

(A) J and Q  (B) K and L
(C) K and P  (D) L and P

33. If P is not selected to attend the retirement dinner, then exactly how many different groups of four are there each of which would be an acceptable selection?

(A) one  (B) two
(C) three  (D) four

34. There is only one acceptable group of four that can be selected to attend the retirement dinner if which one of the following pairs of people is selected?

(A) K and M  (B) L and N
(C) L and Q  (D) M and Q

Directions for Q.35 to Q.38: Find the odd word/letters/number/figure from the given responses.

35. (A) Newspaper  (B) Press
(C) Edition  (D) Audition

36. (A) Microbe  (B) Microfilm
(C) Microphone  (D) Microscope

Space For Rough Work
37. (A) PRSQ   (B) UWXV
    (C) LONM   (D) CEFD

38. (A) YXVU   (B) ORQP
    (C) KJHG   (D) MLJI

Directions for Q.39 to Q.41: Look carefully for the pattern, and then choose which pair of numbers comes next.

प्रश्न संख्या 39–41 के लिए निर्देश: पैटर्न के लिए ध्यानपूर्वक देखें और तब चुनें कि कौन संख्या-जोड़ी आये आती है?

39. 1713420203123
    (A) 2623   (B) 2333
    (C) 2728   (D) 2328

40. 2345648
    (A) 910    (B) 48
    (C) 104    (D) 94

41. 615750614361
    (A) 2961   (B) 2720
    (C) 2215   (D) 2922

Directions for Q.42 to Q.45.: Complete the series by choosing the appropriate missing term from the options given.

प्रश्न संख्या 42–45 के लिए निर्देश: इसे गत्वे विकल्पों में से समाप्तिक उपयुक्त अनुपूर्णित भाग (term) का चयन कर दी गई श्रेणी को पूरा करें

42. FRP, HPQ, JNS, LLV, ?
    (A) PKZ    (B) NJZ
    (C) OJZ    (D) MKZ

    (A) T12F   (B) R11F
    (C) T11E   (D) R13D

44. 22, 21, 23, 22, 24, 23, ?
    (A) 22    (B) 24
    (C) 25    (D) 26

45. 8, 43, 11, 41, ?, 39, 17.
    (A) 8    (B) 14
    (C) 43   (D) 44

Directions for Q.46 to Q.51: Fill in the blanks by choosing the best option.

प्रश्न संख्या 46–51 के लिए निर्देश : उपयुक्त विकल्प से रिक्त स्थान को भरें

46. QPO NML KJI____EDC
    (A) HGF    (B) CAB
    (C) JKL    (D) GHI

47. JAK KBL LCM MDN____
    (A) OEP    (B) NEO
    (C) MEN    (D) PFQ

48. B₂CD _____ BCD₄ B₅CD BC₆D
    (A) B₂C₃D (B) BC₆D
    (C) B₂C₅D (D) BCD₇

49. EFA GLHA ILJA ____ MLNA
    (A) OLPA   (B) KLMIA
    (C) LLMA   (D) KLLA

50. P₃QR P₄QS P₅QT ____ PQV
    (A) PQW    (B) PQQ₂
    (C) P₂QU   (D) PQ₃U

51. CMM EOO GQQ ____ KUU
    (A) GRR    (B) GSS
    (C) ISS    (D) ITT

Space For Rough Work

S C  -  D  -  A
52. 4, 7, 25, 10, ___, 20, 16, 19
(A) 13  (B) 15  (C) 20  (D) 28

53. 72, 76, 73, 77, 74, ___, 75
(A) 70  (B) 71  (C) 75  (D) 78

54. 70, 71, 76, ___, 81, 86, 70, 91
(A) 70  (B) 71  (C) 80  (D) 96

55. Given: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday
What day comes three days after the day which comes two days after the day which comes immediately after the day which comes two days after Monday?
(A) Sunday  (B) Tuesday  (C) Thursday  (D) Saturday

56. Before the printing press, books could be purchased only in expensive manuscript copies. The printing press produced books that were significantly less expensive than the manuscript editions. The public's demand for printed books in the first years after the invention of the printing press was many times greater than demand had been for manuscript copies. This increase demonstrates that there was a dramatic jump in the number of people who learned how to read in the years after publishers first started producing books on the printing press. Which one of the following statements, if true, casts doubt on the argument?
(A) During the first years after the invention of the printing press, letter writing by people who wrote without the assistance of scribes or clerks exhibited a dramatic increase.

(2) Books produced on the printing press are often found with written comments in the margins in the handwriting of the people who owned the books.

(3) In the first years after the printing press was invented, printed books were purchased primarily by people who had always bought and read expensive manuscripts but could afford a greater number of printed books for the same money.

(4) Books that were printed on the printing press in the first years after its invention often circulated among friends in informal reading clubs or libraries.

मुद्रण-यंत्र के पहले पुस्तकों के लिए भी भारतीय प्रतिदिनियों में दीर्घकालिक भी थी। मुद्रण-यंत्र द्वारा लिखित संस्करणों से काफी सस्ती पुस्तकें छपने लगे। मुद्रण-यंत्र के आविष्कार के प्रथम वर्षों में पुस्तकों की मूल्य हल्का होने के कारण उन्हें की गई गुणा ज्यादा हो गयी। मूल्य में यह वर्ष में दिखाई देगी कि प्रकाशकों द्वारा मुद्रण-यंत्र से पुस्तक बनाकर की शुरुआत के बाद के वर्षों खर्चने वालों की संख्या में उछाल आया।

(A) मुद्रण-यंत्र के आविष्कार के बाद की शुरुआत के लिए सिपियों या मुंबई के सहायता के द्वारा पंजी के लिए सबसे मान्य हुई।

(2) मुद्रित पुस्तकों के हस्तियों में उनके व्यवस्थितों द्वारा लिखित हिली पत्रों की जाती है।
57. Bevex, an artificial sweetener used only in soft drinks, is carcinogenic for mice, but only when it is consumed in very large quantities. To ingest an amount of Bevex equivalent to the amount fed to the mice in the relevant studies, a person would have to drink 25 cans of Bevex-sweetened soft drinks per day. For that reason, Bevex is in fact safe for people.

In order for the conclusion that Bevex is safe for people to be properly drawn, which one of the following must be true?

(A) Cancer from carcinogenic substances develops more slowly in mice than it does in people.

(B) All food additives that are currently used in foods were tested, some would be found to be carcinogenic for mice.

(C) People drink fewer than 25 cans of Bevex-sweetened soda per day.

(D) People can obtain important health benefits by controlling their weight through the use of artificially sweetened soft drinks.

58. Saurabh: Airlines have made it possible for anyone to travel around the world in much less time than was formerly possible.

Monica: That is not true. Many flights are too expensive for all but the rich.

Monica’s response shows that she interprets Saurabh’s statement to imply that

(A) everyone has an equal right to experience world travel

(B) world travel is only possible via routes serviced by airlines

(C) most forms of world travel are not affordable for most people

(D) anyone can afford to travel long distances by air

तीर्था: घाई कंपनियाँ ने सभी के लिए पहले से बहुत कम समय में विश्व की परिक्रमा समय कर दिया है।

मोनिका: यह सत्य नहीं है। बहुत सी उड़ान अंतरिक्ष को छोटी से छोटी अंतरिक्ष के लिए अतीत नहीं हैं।

मोनिका की प्रतिक्रिया में प्रतीत होता है कि यह तीर्था की उत्तर को इस तरह समझती है कि घाई कंपनियाँ ने उड़ान को घाई कंपनी के लिए अलग वक्ता किया है:

(A) प्रति से अवधि को विश्व-विभाग का समान अवधि मानना है।

(B) विश्व-विभाग मात्र हवाई सफर से ही संबंध है।

(C) सर्वविध लोगों के लिए विश्व विभाग सर्वविध प्रकार खरीदने के लिए निम्न राशि नहीं है।

(D) कोई भी हवाई सफर से दूर तक यात्रा करने में सामान्य है।
59. Nutritionists have recommended that people eat more fiber. Advertisements for a new fiber-supplement pill state only that it contains "44 percent fiber."

The advertising claim is misleading in its selection of information on which to focus if which one of the following is true?

(A) Nutritionists base their recommendation on medical findings that dietary fiber protects against some kinds of cancer.

(B) It is possible to become addicted to some kinds of advertised pills, such as sleeping pills and painkillers.

(C) The label of the advertised product recommends taking 3 pills every day.

(D) The recommended daily intake of fiber is 20 to 30 grams, and the pill contains one-third gram.

60. Many environmentalists have urged environmental awareness on consumers, saying that if we accept moral responsibility for our effects on the environment, then products that directly or indirectly harm the environment ought to be avoided. Unfortunately it is usually impossible for consumers to assess the environmental impact of a product, and thus impossible for them to consciously restrict their purchases to environmentally benign products. Because of this impossibility there can be no moral duty to choose products in the way these environmentalists urge, since

Which one of the following principles provides the most appropriate completion for the argument?

(A) a moral duty to perform an action is never based solely on the effects the action will have on other people

(B) a person cannot possibly have a moral duty to do what he or she is unable to do

(C) moral considerations should not be the sole determinants of what products are made available to consumers

(D) the morally right action is always the one whose effects produce the least total harm

बहुत से पर्यावरणविद उपयोगका के पर्यावरण-संबंधी जानकारी पर मोर्टर देते हैं उनका कहना है कि अगर हम पर्यावरण पर अपने प्रभाव की नैतिक जिम्मेदारी को स्वीकार करते हैं, तो प्रभाव का पश्चात रूप से पर्यावरण को हानि पहुँचाने वाले उत्पादों का परिहार करना चाहिए। दुर्भाग्यवश, सामन्यतः उपयोगका के लिए किसी उत्पाद के पर्यावरण पर प्रभाव का मूल्यांकन करना असंभव है और तदनुसार अपने उपयोग पर्यावरण-दृष्टि से उत्पादों को सीमित रखना असंभव है। इस असंभवता के कारण पर्यावरणविद के आग्रह के अनुसार उत्पाद यथा कोई नैतिक जिम्मेदारी नहीं हो सकती व्याख्या नि-सत्सिद्धित सिद्धांतों में से कौन उपयुक्त तरक का सम्बन्धित होगा?

(A) कार्य सम्पन्न का नैतिक तत्त्व के कार्य को दूसरे लोगों पर प्रभाव पर आर्थिक कहने के विकार हो सकता है।

(B) जो काम कोई व्यक्ति कर नहीं सकता/सक्षम नहीं हो, उसे करने की नैतिक जिम्मेदारी उपर पर नहीं हो सकती है।

(C) नैतिक तरह ही इस बात का एक मात्र निर्धारित नहीं हो सकते हैं कि उपयोगका को कौन उपयोग प्राप्त होते हैं।

(D) हरेसा वही कार्य नैतिक रूप से सही कार्य है जो कम से कम समूह संबंधी हानि पहुँचाता है।

Space For Rough Work

S C - D - A
61. A man rowed 3 miles upstream in 90 minutes. If the river flowed with a current of 2 miles per hour, how long did the man’s return trip take?
(A) 20 minutes  (B) 30 minutes
(C) 45 minutes  (D) 60 minutes

62. A man walks 10 miles at an average rate of 2 miles per hour and returns on a bicycle at an average rate of 10 miles per hour. How long (to the nearest hour) does the entire trip take him?
(A) 4 hours  (B) 5 hours
(C) 6 hours  (D) 7 hours

64. What is the area of a semicircle with a diameter of 16 inches?
(A) $32\pi$ square inches  (B) $64\pi$ square inches
(C) $128\pi$ square inches  (D) $256\pi$ square inches

65. Which of the following figures has the largest perimeter? (1 foot = 12 inches)
(A) a square with a diagonal of 5 feet  (B) a rectangle with sides of 3 feet and 4 feet
(C) an equilateral triangle with a side equal to 48 inches  (D) a regular hexagon whose longest diagonal is 6 feet

63. A circular garden twenty feet in diameter is surrounded by a path three feet wide. What is the area of the path?
(A) $51\pi$ square feet  (B) $60\pi$ square feet
(C) $69\pi$ square feet  (D) $90\pi$ square feet

66. Two bicyclists travel in opposite directions. One travels 5 miles per hour faster than the other. In 2 hours they are 50 miles apart. What is the rate of the faster bicyclist?

(A) 22.5 mph  (B) 15 mph
(C) 20 mph  (D) 11.25 mph
67. Sonal has finished reading 30% of a 340-page novel. How many pages has she read?
    सोनल ने 340 पृष्ठों के एक उपन्यास का 30% पढ़ लिया है। उससे उपन्यास के कितने पृष्ठ पढ़े?
    (A) 102    (B) 103
    (C) 105    (D) 113

68. Of 150 people polled, 105 said they rode the city bus at least 3 times per week. How many people out of 100,000 could be expected to ride the city bus at least 3 times each week?
    150 लोगों की सम्पूर्णता में, 105 ने कहा कि वह प्रति सप्ताह में कम से कम 3 बार सिटी बस में चढ़े हैं, तो 100,000 लोगों में कितने को प्रति सप्ताह कम से कम 3 बार सिटी बस में चढ़ने की संभावना है?
    (A) 55,000    (B) 70,000
    (C) 72,500    (D) 75,000

69. The sum of a number and its double is 69. What is the number?
    एक संख्या और उसके दोगुने का योग 69 है तो वह संख्या होगी —
    (A) 23.6    (B) 34.5
    (C) 23    (D) 20

70. Twelve less than 4 times a number is 20. What is the number?
    चौक से चार का तिगुना से 12 कम का मान 20 है। वह संख्या क्या है?
    (A) 2    (B) 4
    (C) 6    (D) 8

71. A certain number when added to 50% of itself is 27. What is the number?
    एक निश्चित संख्या और 50% प्रतिशत का योग 27 है तो वह संख्या होगी—
    (A) 7    (B) 9
    (C) 11    (D) 18

72. Rani will be twice Raja’s age in 3 years when Raja will be 40. How many years old is Rani now?
    रानी और राजा की आयु 3 वर्षों बाद राजा की आयु का दुगुनी होगी। वर्तमान में रानी की आयु कितनी है?
    (A) 20    (B) 80
    (C) 77    (D) 37

73. The perimeter of a parallelogram is 50 cm. The length of the parallelogram is 5 cm more than the width. Find the length of the parallelogram.
    एक समांतर चतुर्भुज की परिधि 50 सेंटी मीटर है। समांतर चतुर्भुज की लम्बाई चौड़ाई से 5 सेंटी मीटर ज्यादा है। तब समांतर चतुर्भुज की लम्बाई निकाले।
    (A) 15 cm    (B) 11 cm
    (C) 5 cm    (D) 10 cm

74. Rahim travelled straight from point E to F at a distance of 5 km. From F he turned left and travelled 6 km and reached point G, there he took a left turn and travelled 5 km to reach point H. He took another left turn and travelled 2 km and reached point I. How far is he from the starting point?
    राहिम E से F तक की 5 किमी की दूरी तय करता है। F से वह बाएं का दिशा में चलता है और 6 किमी चलकर G तक पहुँचता है। वह फिर बाएं की दिशा में चलकर 5 किमी चलता है और H पर पहुँचता है। वह फिर बाएं की दिशा में चलकर 2 किमी चलता है और I पर पहुँचता है। वह उसकी दूरी तय करता है?
    (A) 3 km    (B) 4 km
    (C) 5 km    (D) 7 km
75. A man is facing East, then he turns left and goes 10 m, then turns right and goes 5 m, then goes 5 m to the South and from there 5 m to West. In which direction is he, from his original place?
(A) East  
(B) West  
(C) North  
(D) South

76. GIMPS project of the University of Central Missouri is responsible for discovering
(A) Largest known prime number  
(B) Biggest meteor  
(C) Zika virus  
(D) Secure cryptographic Algorithm

77. ALMA is a
(A) Powerful open source web browser  
(B) Giant Telescope  
(C) Fastest Supercomputer  
(D) Biggest Navigational satellite of India

78. Advanced LIGO recently observed the
(A) Black Hole activity  
(B) Gravitational waves  
(C) UFO  
(D) Sun Temperature

79. In computing noble prize is generally known as
(A) Von Neuman award  
(B) Turing award  
(C) Pascal award  
(D) Napier award

80. International Domain Names in Applications (IDNA) uses which encoding syntax to represent Unicode characters in ASCII format
(A) Punycode  
(B) DHTMLed  
(C) HASHcode  
(D) BERcode

81. IRNSS-1E is fifth satellite in the
(A) IRNSS  
(B) SHAR  
(C) ISRO  
(D) MARS

82. Internet Protocol version 6 (IPv6) is developed by
(A) IETF  
(B) ANSI  
(C) ISO  
(D) IEEE

83. Among the following
(i) WLAN  
(ii) ZigBee  
(iii) WiMax  
(iv) Bluetooth device
Which of the above can operate between 2400 and 2500 MHz range of the radio frequency band?
(A) (i) and (ii) only  
(B) (iii) and (iv) only  
(C) (i) only  
(D) All of the above

84. URKUND is a
(A) Lexical Analyser  
(B) Emulator  
(C) Plagiarism checker  
(D) Big data analytic tool
85. **Kevlar** belongs to a class of materials known as
   (A) Ceramics  (B) Polymers  (C) Carbon  (D) Plastics

86. Which Computer Program was claimed to beat the Turing test
   (A) Eugene Groostman  (B) Deep Blue  (C) AI  (D) Trueman

87. Who gave the (so-called) Three laws of Robotics
   (A) von Neumann  (B) Issac Asimov  (C) Alan Turing  (D) Sabeer Bhatia

88. _________ has been predicted to deliver cancer-killing medicine at a molecular-level.
   (A) MolDel  (B) CureIT  (C) Nano – Cages  (D) Nano – Tubes

89. Sodium based _________ have been predicted to lead to cheaper, more stable and more powerful mobile battery power.
   (A) Lithium Hydride  (B) Carbonyle  (C) Silicate  (D) Complex Metal Hydride

90. Quantum computers are assessed to be
   (A) Supra – Turing Machine.  (B) Sub – Turing Machine.  (C) Equivalent to Turing Machine.  (D) Equivalent to Push – Down Automata.

91. Constantinos Daskalakis proved that computing the Nash equilibrium for a three-person game is computationally _________.
   (A) Tractable  (B) in P  (C) Intractable.  (D) Decidable

92. The concept of semantic web was proposed / given by _________.
   (A) Ullman  (B) Ravi Sethi  (C) Time Berners Lee  (D) Donald Knuth

93. Researchers at the Massachusetts Institute of Technology (MIT) have shown that by exploiting the polarisation of light – the physical phenomenon behind polarised sunglasses and most 3-D movie systems – they can increase the resolution of conventional 3-D imaging devices by up to _________ times.
   (A) 10  (B) 100  (C) 1000  (D) 100000

94. Which fundamental particle is a sub-part of proton.
   (A) quark(s)  (B) fermion(s)  (C) boson(s)  (D) bogolon(s)

95. Which manifestation of the predications of General Theory of Relativity was experimentally validated.
   (A) Energy waves  (B) Precession of Mercury’s orbit  (C) Bending of light about a massive body  (D) Gravitational waves
96. Who showed that primes are in P.
   (A) Maninder Aggarwal, N. Kayal and N. Saxena
   (B) Donald Knuth
   (C) Aho, Hopcroft and Ullman
   (D) Tim Berners Lee

97. Self Organizing Maps are _____________.
   (A) A type of statistical tool for data analysis
   (B) A type of Artificial Neural Networks
   (C) A type of particle Swarm Algorithm
   (D) None of the above

98. Hopfield networks are a type of ___________.
   (A) Giga bit network
   (B) Terra bit network
   (C) Artificial neural network
   (D) Wireless network

99. Sigmoidal feedforward artificial neural networks with one hidden layer can / are _____________.
   (A) approximate any continuous function.
   (B) approximate any dis-continuous function.
   (C) approximate any continuous function and its derivatives of arbitrary order.
   (D) exact modeling technique.

100. ICA (in computational intelligence) stands for _____________.
    (A) Intermediate Computational Algorithms
    (B) Immediate Computation and Analysis
    (C) Independent Component Analysis
    (D) Independent Computational Algorithms