INSTRUCTIONS TO CANDIDATES

(Use only blue/black ball-point pen in the space above and on both sides of the Answer Sheet)

1. Within 10 minutes of the issue of the Question Booklet, check the Question Booklet to ensure that it contains all the pages in correct sequence and that no page/question is missing. In case of faulty Question Booklet bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.

2. Do not bring any loose paper, written or blank, inside the Examination Hall except the Admit Card without its envelope.

3. A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided. Only the Answer Sheet will be evaluated.

4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.

5. On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.

6. No overwriting is allowed in the entries of Roll No., Question Booklet no. and Set no. (if any) on OMR sheet and Roll No. and OMR sheet no. on the Question Booklet.

7. Any change in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.

8. Each question in this Booklet is followed by four alternative answers. For each question, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by pen as mentioned in the guidelines given on the first page of the Answer Sheet.

9. For each question, darken only one circle on the Answer Sheet. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.

10. Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero marks).

11. For rough work, use the inner back page of the title cover and the blank page at the end of this Booklet.

12. Deposit only OMR Answer Sheet at the end of the Test.

13. You are not permitted to leave the Examination Hall until the end of the Test.

14. If a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.

Total No. of Printed Pages: 32
ROUGH WORK
राफ़ कार्य
Time: $2 \frac{1}{2}$ Hours

Full Marks: 450

Note: (1) Attempt as many questions as you can. Each question carries 3 (Three) marks. One mark will be deducted for each incorrect answer. Zero mark will be awarded for each unattempted question.

(2) If more than one alternative answers seem to be approximate to the correct answer, choose the closest one.

01. Who among the following has been made the Chairman of "Banks Boards Bureau"?
   (1) Naina Lal Kidwai  (2) Vinod Rai  
   (3) Shikha Sharma  (4) Arundhati Bhattacharya

02. Bullet train is being proposed between which of the following two cities?
   (1) Badodara - Ahmedabad  (2) Mumbai - Ahmedabad  
   (3) Mumbai - Surat  (4) Mumbai - Goa

03. Who among the following was awarded Dada Saheb Phalke in the year 2016?
   (1) Dileep Kumar  (2) Amitabh Bachchan  
   (3) Rajendra Kumar  (4) Manoj Kumar

04. The States involved in Dandakaranya project are:
   (1) Uttar Pradesh, Karnataka and Maharshtra  
   (2) Tamil Nadu, Andhra Pradesh and Karnataka  
   (3) Andhra Pradesh, Chhattisgarh and Odisha  
   (4) Andhra Pradesh, Kerala and Tamil Nadu

P.T.O.
05. Time magazine named ------- its Person of the Year 2015.
   (1) Angela Merkel          (2) Malala Yousafzai
   (3) Barack Obama           (4) Vladimir Putin

06. North Korea on 6 January, 2016 claimed that it had successfully tested a/an:
   (1) atomic bomb            (2) hydrogen bomb
   (3) biogas bomb            (4) bomb based on fission reaction

07. Who is the 158th member of WTO?
   (1) Russia                (2) Vanuatu
   (3) Laos                  (4) Australia

08. What is the 'Peace Clause' under the provisions of World Trade Organisation?
   (1) It protects the interests of least developed countries
   (2) It allows developing countries, such as India, legal protection,
       against action by other countries for breaching food subsidy limits
       prescribed under the agreement on agriculture
   (3) It gives time to developed countries to adopt cleaner technology
       of the production
   (4) None of the above

09. The World Bank has set a new goal of reducing extreme poverty to:
   (1) 6 per cent by 2018      (2) 3 per cent by 2025
   (3) 0 per cent by 2030      (4) 9 per cent by 2020

10. The Rohingya are the minorities of:
    (1) South Africa          (2) Canada
    (3) Myanmar               (4) Bhutan
11. In the Gupta age, Varahamihira wrote the famous book, Brihat Samhita. It was treatise on:
   (1) Astronomy
   (2) Statecraft
   (3) Ayurvedic system of medicine
   (4) Economics

12. British colonialism in India saw the emergence of new cities. Calcutta, now Kolkata, was one of the first cities. Which of the mates to form the city of Calcutta?
   (1) Midnapur, Chittagong, Burdwan
   (2) 24-Parganas, Kalikata, Thakurgaon
   (3) Sutanuti, Kalikata, Gobindapur
   (4) Midnapur, Thakutgaon, Gobindapur

13. The Government of India Act, 1919:
   (1) Established a bicameral legislature at the centre
   (2) Introduced diarchy in the provincial executive
   (3) Introduction a federal system of government in India

Select the correct answer using the codes given below:
   (1) 1 and 3 only
   (2) 2 and 3 only
   (3) 1, 2 and 3
   (d) 1 and 2 only

14. Which saint propounded 'Advaitvad'?
   (1) Shankaracharya
   (2) Ramanad
   (3) Kabir
   (4) Chaitnya

5
15. Consider the following statement:

"No Indian could have started the Indian National Congress. if the founder of the Congress had not been a great Englishman and a distinguished ex-official, such was the distrust of political agitation in those days that the found would have at once suppress the movement." Who among the following gave the statement on the establishment of Indian National Congress?

(1) W. Wedderburn  (2) G. K. Gokhale  
(3) R. Palme Dutt  (4) Allan Octavian Hume

16. Cyclone Helen affected:

(1) Coastal Andhra Pradesh  (2) Coastal Odisha  
(3) Coastal Karnataka  (4) Coastal Kerala

17. Which of the followings is not notified biosphere reserve in India?

(1) Keola deo sanctuary in Bharatpur  
(2) Agasthyamalai Kerala  
(3) Cold Desert in Himachal Pradesh  
(4) Panna in Madhya Pradesh

18. Which one among the following Indian rivers originates in Maharashtra and flows through Karnataka and Andhra Pradesh to meet the Bay of Bengal in Andhra coast?

(1) Mahanadi  (2) Cauvery  
(3) Krishna  (4) Godavari

19. The planetary winds that blow from the subtropical high-pressure belts to the Equator are known as:

(1) Westerlies  (2) Doldrums  
(3) Polar winds  (4) Trade winds
20. Bitcoins are:
   (1) Virtual currency earned by solving a complex set of logarithms (computer-based)
   (2) A portal of capital market
   (3) Genetically grown crops
   (4) Genetically grown buffalos

21. 'Global Damming' means:
   (1) Gradual increase of the temperature of ionosphere
   (2) Gradual loss of biodiversity hot spots
   (3) Gradual reduction in the amount of global direct irradiance at the earth surface
   (4) Gradual increase in the melting of ice in polar regions

22. Why hard water does not give lather with soap?
   (1) Hard water contains Ca and Mg ions which form precipitate with soap
   (2) Hard water contains sulphate and chloride ions which forms precipitate
   (3) pH of hard water is high
   (4) pH of hard water is less

23. Which one among the following metals is used in fireworks to make a brilliant white light?
   (1) Soidum
   (2) Magnesium
   (3) Aluminium
   (4) Silver

24. Which of the following gases in the atmosphere is/are responsible for acid rains?
   (1) Oxides of sulphur
   (2) Oxides of nitrogen
   (3) Oxides of carbon

Select the correct answer using the code given below.
(1) 1 and 2 only
(2) 1 and 3 only
(3) 2 only
(4) 1, 2 and 3
25. Which one among the following gases readily combines with the haemoglobin of the blood?
   (1) Methane         (2) Nitrogen dioxide
   (3) Carbon monoxide (4) Sulphur dioxide

26. Dual-Energy X-ray Absorptiometry (DEXA) is used to measure:
   (1) Spread of solid tumour
   (2) Bone density
   (3) Ulcerous growth in stomach
   (4) Extent of brain haemorrhage

27. Human blood is a viscous fluid.
    This viscosity is due to:
   (1) Proteins in blood         (2) Platelets in plasma
   (3) Sodium in serum           (4) RBC and WBC in blood

28. In terms of magnetic properties, oxygen belongs to:
   (1) Magnetic materials        (2) Ferromagnetic materials
   (3) Paramagnetic materials    (4) Diamagnetic materials

29. Light Emitting Diode (LED) converts:
   (1) Light energy into electrical energy
   (2) Electrical energy into light energy
   (3) Thermal energy into light energy
   (4) Mechanical energy into electrical energy

30. The pH of fresh milk is 6. When it turns sour, the pH:
   (1) Becomes < 6               (2) Remains the same, i.e., 6
   (3) Become > 6               (4) Become neutral, i.e., 7
31. Whose decision is final regarding the nature of money Bill?
   (1) President of India       (2) Prime Minister of India
   (3) Speaker of Lok Sabha    (4) Union Cabinet

32. Which one among the following is a Fundamental Duty of citizens under the Constitution of India?
   (1) To provide friendly cooperation to the people of the neighbouring countries
   (2) To visit the monuments of national importance
   (3) To defend the country and render national service when called upon to do so
   (4) To known more and more about the religious of India

33. Which one among the following Committees of the Parliament of India has no members of the Rajaya Sabha?
   (1) Public Accounts Committee
   (2) Estimates Committee
   (3) Public Undertaking Committee
   (4) Departmentally Related Standing Committee on Finance

34. Which one among the following is not a constitutional body in India?
   (1) Comptroller and Auditor General
   (2) National Commissioner Linguistic Minorities
   (3) National Commission for Scheduled Castes
   (4) National Human Rights Commission

35. To whom does the President of India submit his resignation?
   (1) Vice-President          (2) Chief-Justice
   (3) Speaker of Lok Sabha    (4) Prime Minister

9

P.T.O.
36. On 2nd October, 1959, Panchayati Raj was introduced in India at which of the following places?
   (1) Nagore - Rajasthan
   (2) Rajmundari - Andhra Pradesh
   (3) Sitamarhi - Bihar
   (4) Aligrah - Uttar Pradesh

37. Which of the following is not a team in India Badminton League?
   (1) Krrish Delhi Smashers
   (2) Pune Pistons
   (3) Banga Beats
   (4) Chandigarh Hotshots

38. Who among the following has been appointed as tournament director of the fourth edition of Hockey India League?
   (1) Craigie Griddle
   (2) Bjorn Isberg
   (3) Andy Meyer
   (4) Milind Narwekar

39. Who won 2015 Wimbledon men's single championship?
   (1) Novak Dzokovic
   (2) Roger Federer
   (3) Rafael Nadal
   (4) Andy Murray

40. Who of the following was the winner of men's single world badminton championship?
   (1) Kento Momota
   (2) Jan Jorgensen
   (3) Lee Chong Wei
   (4) Chen Long

41. The FIFA Ballon d'or 2015 award for the world's best player was won by:
   (1) Cristiano Ronaldo
   (2) Lionel Messi
   (3) Neymar
   (4) Ronaldinho
42. A book 'Fault Lines' is written by:
(1) Raghuram Rajan
(2) D. Subba Rao
(3) Vimal Jalan
(4) Montek Singh Ahluwalia

43. For multiproduct SEZs, the minimum land requirement is:
(1) 500 hectare
(2) 1000 hectare
(3) 1500 hectare
(4) 2000 hectare

44. Rashtriya Ispat Nigam Ltd's Steel Plant is located at:
(1) Jamshedpur
(2) Bhilai
(3) Vishakhapatnam
(4) Durgapur

45. Global glut has been noticed in:
(1) Tea
(2) Coffee
(3) Ruber
(4) Sugar

46. A much acclaimed book "The Immortals of Meluha" has been authored by:
(1) Amish Tripathi
(2) Karan Johar
(3) Mahesh Bhatt
(4) Karan Thaper

47. What was Ziyarat in the language of the Sufis?
(1) Pilgrimage to the tops of sufi saints of seeking barkat (spiritual grace)
(2) Reciting divine name
(3) Offering free kitchens run on faith (unasked for charity)
(4) Setting up of aqaf (charitable trusts)

48. With which of the following dance forms is Madhvi Mudgal associated?
(1) Kathakali
(2) Kathak
(3) Odissi
(4) Bharatnatyam
49. Angus Deaton, the British - American economist, won Nobel Prize in Economics 2015 for his analysis of:
   (1) Supply and Demand
   (2) Consumption and Poverty
   (3) Consumption, Poverty and Welfare
   (4) Investment, Poverty and Welfare

50. 'Laisse faire' is associated with:
   (1) Market based capitalistic economy
   (2) Socialistic economy
   (3) Mixed economy
   (4) Parallel economy

51. Which of the following figures is different from others?

   (1) O       (2) △
   (3) □        (4) □

52. Which of the following pairs has the same relationship as it is between JL and WZ?

   (1) AC and RU       (2) AB and PW
   (3) PR and LM       (4) TU and WX

53. Which of the following is the proper order?

   (1) To listen, to think, to trust, to work
   (2) To trust, to listen, to think, to work
   (3) To think, to trust, to listen, to work
   (4) To trust, to work, to think, to listen
54. Which of the following pairs has the same relationship as is found between Australia : Continent?
   (1) Engine : Train  (2) River : Coast
   (3) Vikrant : Ship  (4) Yuri Gagarin : Space

55. Examine the following three statements:
   (1) Shyam is not the father of Hari.
   (2) Hari is the son of Suresh.
   (3) Suresh has three sons.
   Which of the following conclusions can be drawn from the above statements?
   (1) Shyam is son of Suresh
   (2) Hari is brother of Shyam
   (3) Suresh is father of Hari
   (4) Shyam has no children

56. If Monday falls on the first of October which day will fall three days after the 20th in that month?
   (1) Monday  (2) Tuesday
   (3) Wednesday  (4) Sunday

57. Select the correct alternative out of the given four to complete the sequence:
    - A — A — B A B — B - B A B A
    (1) BBABAA  (2) BBAAAA
    (3) ABABBA  (4) BBAABB

58. In a row of children Bali is seventh from the left and Moti is fourth from the right. When Bali and Moti exchange their positions, Bali will be fifteenth from the left. Moti’s position from the right will be:
   (1) Eighth  (2) Fourth  (3) Eleventh  (4) Twelfth
59. There are four roads. I have come from the south and want to go to the temple. The road to right leads me away from the coffee house while straight road leads only to a college. In which direction is the temple?
(1) North  (2) East  (3) South  (4) West

60. Five persons A, B, C, D and E are either guards or thieves. The guards always tell the truth whereas thieves always tell a lie. A claims that B is a guard. B claims that C is thief. C claims that D is a thief. E claims that A is a guard. D claims that B and E are different kinds. The number of thieves is:
(1) 1  (2) 2  (3) 3  (4) 4

61. Among five friends A is heavier than B, C is lighter than D, B is lighter than D but heavier than E. Who among them is the heaviest?
(1) B  (2) C  (3) D  (4) A

62. Seven children A, B, C, D, E, F and G are standing in a row. G is to the right of D and to the left of B. A is not the right of C. A and D have one child between them. E and B have two children between them. D and F have also children between them. Who is exactly in the middle?
(1) A  (2) C  (3) D  (4) G

63. A cube has six faces each of different colour. The Red face is opposite to black. The green face is adjacent to white and brown face is adjacent to blue. The colours adjacent to green are:
(1) Red, black, brown and white
(2) Red, black brown and blue
(3) Red, black blue and white
(4) Red, brown, blue and white
64. The time in a clock is quarter past twelve. If the four hand points to the East, which is the direction opposite to the minute hand?
   (1) South - West  (2) South
   (3) West         (4) North

65. Examine the following statements:
   (1) Either Ram and Shyam are of the same age or Ram is older than Shyam.
   (2) Either Ali and John are of the same age or John is older than Ali.
   (3) Shyam is older than Ali.
   Which one of the following conclusions can be drawn from the above statements?
   (1) Ram is older than Shyam
   (2) John is older than Ali
   (3) Shyam and John are of the same age
   (4) Ram is older than Ali

66. Mr. Vasu, the managing director of X, Y, Z company asked five persons - Asit, Varun, Chandra interest in a new project. Ten replies, he got, were:
   Asit : None of us is interested
   Varun : One of us is interested
   Chandra : Two of us are interested
   Danny : Three of us are interested.
   Eshita : Four of us are interested.
   From his experience, Mr. Vasu knows that those who are interested only tell the truth and others lie. How many of them are interested in the new project?
   (1) 4  (2) 3  (3) 2  (4) 1
Directions: (Q. 67 and 68) Consider the following statements and answer Q.Nos. 67 and 68 on the basis of these statements.

(i) A guest house has six rooms. A, B, C, D, E and F. Among these A and C can accommodate two persons each, the rest can accommodate only one each.

(ii) Eight guests P, Q, R, S, T, U, W and X are to be kept in rooms. Q, T, and X are females while the other are males. The two sexes cannot be put together in the same room. No man in willing to stay in room C. or F.

(iii) P wants to be alone but does not want to stay in room B or D. S needs a partner but is not ready to stay with U or W. X does not want to share her room.

67. Who among the following will stay in room E?
   (1) U   (2) W   (3) P   (4) Q

68. 'X' will stay in which of the room?
   (1) C   (2) E   (3) B   (4) F

69. Find out the median of the following frequency distribution:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
</tr>
</tbody>
</table>

(1) 16 (2) 15 (3) 14 (4) 13
70. Find out the mean height of plants form the following frequency distribution:

<table>
<thead>
<tr>
<th>Height in Cm.</th>
<th>No. of plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>5</td>
</tr>
<tr>
<td>64</td>
<td>18</td>
</tr>
<tr>
<td>67</td>
<td>42</td>
</tr>
<tr>
<td>70</td>
<td>27</td>
</tr>
<tr>
<td>73</td>
<td>8</td>
</tr>
</tbody>
</table>

(1) 67.00 cm.  (2) 66.50 cm.  (3) 68.00 cm.  (4) 67.45 cm.

71. The mode of the following data is:

<table>
<thead>
<tr>
<th>Class Interval</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-25</td>
<td>2</td>
</tr>
<tr>
<td>25-40</td>
<td>3</td>
</tr>
<tr>
<td>40-55</td>
<td>7</td>
</tr>
<tr>
<td>55-70</td>
<td>6</td>
</tr>
<tr>
<td>70-85</td>
<td>6</td>
</tr>
<tr>
<td>85-100</td>
<td>6</td>
</tr>
</tbody>
</table>

(1) 47.5  (2) 52.0  (3) 54.0  (4) 50.5
**Directions:** (Q. 72 and 73) In the following pie chart percentage expense on various items during the production of a book are given. Based upon the information given in the pie chart, answer the question.

**Sales**

- Cost of printing 20%
- Cost of paper 30%
- Royalty 18%
- Binding 15%
- Miscellaneous 10%
- Advertisement 7%

72. If the 'cost of paper' is Rs. 1,50,000 then the expense on advertisement, is:

(1) Rs. 35,000  (2) Rs. 3,500  
(3) Rs. 40,000  (4) Rs. 25,000

73. The central angle corresponding to the cost of printing, is:

(1) 60°  (2) 72°  (3) 45°  (4) 102°

74. Which one of the following will come in place of the question mark (?)

CD, HI, MN, ?

(1) QS  (2) OP  (3) PQ  (4) RS
75. Which word should be in place of '?' in the following?
XVWU : TRSQ = LJKI : ?
   (1)  HFGE  (2)  EFGH
   (3)  FGHE  (4)  GHEF

76. The day on 18.9.1977 was Sunday. A couple was married on this date. How many marriage anniversaries would fall in Sunday in the next 15 years?
   (1)  1  (2)  2  (3)  5  (4)  9

77. If KAMAL is written as 21413, then MAHAL can be written as:
   (1)  48113  (2)  41813
   (3)  41831  (4)  38141

78. Find out the missing letter in the table:

```
+---+---+---+
| A | Z | B |
+---+---+---+
| Y | C | X |
+---+---+---+
| - | W | E |
```
   (1)  B  (2)  D  (3)  K  (4)  V

79. If the cost price of 16 tables be equal to the selling price of 12 tables, the gain percent is:
   (1)  30%  (2)  15%  (3)  33%  (4)  20%

80. If 378 coins consist of one rupee, 50 paise and 25 paise whose values are proportional to 13 : 11 : 7, the number of 50 paise coins will be:
   (1)  136  (2)  133  (3)  132  (4)  128
81. If the volumes of two right circular cones are in the ratio 1 : 3 and their diameters are in the ratio 3 : 5, then the ratio of their heights is:

(1) 3 : 5  (2) 5 : 27  (3) 25 : 27  (4) 1 : 5

82. In a mixture of 60 liters the ratio of acid and water is 2 : 1. If the ratio of acid and water is to be 1 : 2, then the amount of water (in liter) to be added to the mixture is:

(1) 50  (2) 45  (3) 55  (4) 60

83. The average weight of the students in four sections A, B, C and D is 60 kg. The average weight of the students of A, B, C and D kg. and 80 kg. respectively. If the average weight of the students of section A and B together is 48 kg. and that of B and C together is 60 kg. what is the ratio of the number of students in sections A and D?

(1) 3 : 2  (2) 8 : 5  (3) 12 : 7  (4) 4 : 3

84. On selling 144 bicycles, John lost the selling price of 6 bicycles. His percentage loss is:

(1) 4%  (2) 6%  (3) 8%  (4) 10%

85. What is the percentage increase in the production of rice in the state B in the year 2009 in comparison with 2007?

(1) 70%  (2) 40%  (3) 55%  (4) 25%

86. The centre of the circle \(2x^2 + 2y^2 - 3x - 5y - 7\) will be:

(1) \(\left(\frac{3}{4}, \frac{-5}{4}\right)\)  (2) \(\left(\frac{5}{4}, \frac{-3}{4}\right)\)  (3) \(\left(\frac{-3}{4}, \frac{-5}{4}\right)\)  (4) \(\left(\frac{3}{4}, \frac{5}{4}\right)\)

87. The rational number in the following is:

(1) 1.010010001..............  (2) 2.37137..................  
(3) \(\sqrt{2} - 1/\sqrt{2} + 1\)  (4) \(\pi\)
88. If the zeroes of the polynomial \( x^3 - 3x^2 + x + 1 = 0 \) are \( a - b, a, a + b \), then \( b \) is equal to:

\[
\begin{align*}
&\text{(1)} \quad \sqrt{2} \\
&\text{(2)} \quad 1 \\
&\text{(3)} \quad -1 \\
&\text{(4)} \quad \sqrt{2} - 1
\end{align*}
\]

89. If the zeroes of the polynomial \( x^3 - 3x^2 + x + 1 = 0 \) are \( a - b, a, a + b \), then \( b \) is equal to:

\[
\begin{align*}
&\text{(1)} \quad \sqrt{2} \\
&\text{(2)} \quad 1 \\
&\text{(3)} \quad -1 \\
&\text{(4)} \quad \sqrt{2} - 1
\end{align*}
\]

90. What is the least positive integer which leaves remainder 3 when divided by 4, 5, 6 and 8 but leaves no remainder when divided by 9?

\[
\begin{align*}
&\text{(1)} \quad 729 \\
&\text{(2)} \quad 363 \\
&\text{(3)} \quad 123 \\
&\text{(4)} \quad 243
\end{align*}
\]

91. The single discount equivalent to three successive discounts of 20%, 15%, 10% is:

\[
\begin{align*}
&\text{(1)} \quad 40.32\% \\
&\text{(2)} \quad 45\% \\
&\text{(3)} \quad 50.3\% \\
&\text{(4)} \quad 38.8\%
\end{align*}
\]

92. The greatest number which can divide 1356, 1868, 2764 leaving the \text{same remainder in each case} is:

\[
\begin{align*}
&\text{(1)} \quad 124 \\
&\text{(2)} \quad 128 \\
&\text{(3)} \quad 260 \\
&\text{(4)} \quad 64
\end{align*}
\]

93. A train travels at an average speed of 50 km./hour for \( 2\frac{1}{2} \) hours and then travels at a speed of 70 km./hour for \( 1\frac{1}{2} \) hours. The average speed of the train in km./hour for the entire journey is:

\[
\begin{align*}
&\text{(1)} \quad 62.5 \\
&\text{(2)} \quad 57.5 \\
&\text{(3)} \quad 59.5 \\
&\text{(4)} \quad 60
\end{align*}
\]

94. Working 8 hours a day, 120 persons can dig a canal 162 m. long, 12 m. wide and 2 m. deep in 8 days. Working 6 hours a day, the number of persons that will be retired to dig a canal 729 m. long, 10 m. wide and 3 m. deep in 32 days, is:

\[
\begin{align*}
&\text{(1)} \quad 200 \\
&\text{(2)} \quad 225 \\
&\text{(3)} \quad 250 \\
&\text{(4)} \quad 175
\end{align*}
\]
95. A jogger desires to run a certain course in $\frac{1}{4}$ less time than he usually takes. By what percent must be increase his average running speeds to accomplish the goal?

(1) 25%  (2) $33\frac{1}{3}\%$  (3) 50%  (4) 20%

96. The value of $\sqrt{400} + \sqrt{0.04} - \sqrt{0.000004}$ is:

(1) 20.188  (2) 20.022  (3) 20.22  (4) 20.198

97. Out of two sections A and B, 10 students of section B shift to A, as a result strength of A becomes 3 times the strength of B. But if 10 students shift over from A to B, both A and B become equal in strength. Ratio of number of student in section A to that of section B is:

(1) 3 : 1  (2) 9 : 4  (3) 2 : 1  (4) 5 : 3

98. On a journey across Kolkata, a taxi averages 50 km. per hour for 50% of the distance, 40 km. per hour for 40% of it and 20 per hour for the remaining. The average speed, in km./hour for the whole journey is:

(1) 40  (2) 35  (3) 45  (4) 42

99. If $a^2 + b^2 = 5ab$, then the value of $\frac{a^2}{b^2} + \frac{b^2}{a^2}$ is:

(1) 16  (2) 23  (3) -23  (4) 32

100. If the square of the sum of two numbers is equal to 4 times of their product, then the ratio of these numbers is:

(1) 1 : 3  (2) 1 : 1  (3) 1 : 2  (4) 2 : 1
Directions: (Question No. 101 to 105): Read the following passage carefully and answer the questions that follow by choosing the most appropriate option from the four alternatives.

The greatest enemy of mankind, as people have discovered is not science, but war. Science merely reflects the social forces by which it is surrounded. It is found that when there is peace, science is constructive when there is war, science is perverted to destructive ends. The weapons which science gives us do not necessarily create war, these make 'was increasingly more terrible'. It was brought us to the doorstep of doom. Our main problem, therefore is not to curb science but to stop war to substitute law for force and international government for anarchy in the relations of one nation with another. That is a job in which every-body must participate including the scientists. But the bomb of Hiroshima suddenly woke us to the fact that we have very little time. The hour is late and our work has scarcely begun. Now we are face to face with this urgent question "Can education and tolerance, understanding and creative intelligence run fast enough to keep us abreast with our mounting capacity to destroy? That is the question which we still have to answer one way or the other in this generation. Science must help us in the answer, but the main decision lies within ourselves.

101. An appropriate title for the passage would be:
   (1) Science and New Generation
   (2) Science and Social forces
   (3) Science and the Horrors of war
   (4) Science and world peace

102. According to the passage, the real enemy of mankind is not science, but war because:
   (1) Science during wars is highly destructive
   (2) Science merely invents weapons with which war is fought
   (3) Powerful weapons invented by science do not cause war
   (4) The weapons that science invents necessarily lead to war
103. War can be avoided if:
   (1) Weapons invented by science are not used to launch a war
   (2) Science is not allowed to lead us to utter destruction
   (3) We replace force and lawlessness by law and international government
   (4) Science is restricted to be utilised only during war time

104. According to the writer, the main problem we are faced with is to:
   (1) Prevent scientists from participating in destructive activities
   (2) Abolish war
   (3) Stop scientific activities everywhere.
   (4) Stop science from reflecting social forces.

105. Our mounting capacity to destroy can be kept under control by:
   (1) encouraging social forces
   (2) education and broadmindedness
   (3) insight and constructive thinking
   (4) both (2) and (3) together

Directions (Question No. 106-110): Select from the four alternatives nearest in meaning of the word given in italics:

106. Lithography
   (1) staining technique
   (2) printing method
   (3) colour transfer
   (4) etching procedure

107. Verisimilitude
   (1) artifice
   (2) realism
   (3) difference
   (4) similarity

108. Diatribes
   (1) criticism
   (2) lengthy letter
   (3) exclusive dub
   (4) ancient

109. Colossal
   (1) evil
   (2) colourful
   (3) gigantic
   (4) athletic
110. Sombre
   (1) gloomy             (2) luminous
   (3) placid             (4) opaque

Directions (Question No. 111-115) : Select from the four alternatives the opposite in meaning to the word given in italic :

111. Tarnish
   (1) dull in lustre     (2) silly
   (3) brighten           (4) abnormal

112. Uncouth
   (1) courteous          (2) discourteous
   (3) awkward            (4) crude

113. Knave
   (1) villain            (2) hero
   (3) dishonest          (4) trivial

114. Jocund
   (1) blithesome         (2) indecisive
   (3) depressed          (4) pleasant

115. Carnal
   (1) spiritual          (2) atheist
   (3) lecherous          (4) ornamental

Directions (Question No. 116-120) : From the given options choose the one which has the correct spelling :

116. (1) Convertable
     (3) Convertible       (2) Convertible
     (4) Converteble
117. (1) february  (2) february  
   (3) febrory  (4) febroery 

118. (1) adress  (2) address  
   (3) addres  (4) addrass 

119. (1) suppression  (2) supression  
   (3) suppresion  (4) sepression 

120. (1) negligable  (2) negligible  
   (3) neglegeble  (4) neglible 

Directions (Question No. 121-125): From the given options choose the 
one which can be substituted for the given group of words:

121. One who cannot be corrected ?
   (1) Incurable  (2) Incorrigible  
   (3) Hardened  (4) Invulnerable 

122. One who is in charge of a museum ?
   (1) curator  (2) supervisor  
   (3) caretaker  (4) warden 

123. One who is honourably discharged from service ?
   (1) Retired  (2) Emeritus  
   (3) Relieved  (4) Emancipated 

124. The study of ancient societies :
   (1) Anthropology  (2) Archaeology 
   (3) History  (4) Ethnology
125. A small shop that sells fashionable clothes, cosmetics etc:
   (1) store                     (2) stall
   (3) Boutique                  (4) Booth

Directions (Question No. 126-130): Choose the best option to fill in the blanks:

126. The manager tried hard to — his men to return to work before declaring a lockout:
   (1) encourage                  (2) motivate
   (3) permit                     (4) persuade

127. The ....... of nuclear power feel that it is one of the most dangerous developments in modern civilisation.
   (1) antagonists                (2) victims
   (3) activists                  (4) opponents

128. If someone deliberately damages your property, he is ....... to pay for the cost of repairs:
   (1) liable                     (2) forced
   (3) requested                  (4) compelled

129. As we were walking along the pavement, my little child — on to the road:
   (1) went                      (2) crept
   (3) crawled                   (4) strayed

130. It was difficult to see through the ....... of the headlights at the cars:
   (1) brilliance                (2) dazzle
   (3) glare                     (4) shine
Directions (Question No. 131-135): From the given options, choose the most appropriate preposition to fill in the blanks:

131. I am ready to say this ........... her face.
   (1) at  (2) on
   (3) upon  (4) in

132. Such remarks are certainly derogatory .... your reputation.
   (1) of  (2) for
   (3) with  (4) to

133. A good judge never Jumps ....... The conclusion.
   (1) at  (2) to
   (3) on  (4) for

134. The peasant refused to bow ........ his master.
   (1) on  (2) about
   (3) upon  (4) to

135. No body in our group has a genius .... winning friends and in convincing people.
   (1) for  (2) in
   (3) of  (4) at

Directions (Question No. 136-140): Choose the option for the underlined expression in the given sentences to make the sentence grammatically correct.

136. He enjoys to tell stories to children.
   (1) telling  (2) how to tell
   (3) to narrate  (4) none
137. The short essay should not exceed more than two hundred word.  
(1) exceed  
(3) more exceed  
(2) exceed than  
(4) None  

138. I prefer to ride than to walk.  
(1) ride to walk  
(3) riding to walking  
(2) riding than walking  
(4) No improvement  

139. It is one and quarter hours since Harish went away.  
(1) One and quarter  
(3) One hours and quarter  
(2) One and quarter hour  
(4) One hour and a quarter  

140. Unless he does not leave this house, I will not say anything.  
(1) had left  
(3) did not leave  
(2) left  
(4) leaves  

Directions (Question No. 141-145): Choose the option that best expresses the meaning of idioms given below.  

141. A bird’s eye view  
(1) A personal view  
(3) A biased view  
(2) A general view  
(4) A detailed presentation  

142. Lynch law  
(1) law of the mob  
(3) law of the constitution  
(2) law of the underworld  
(4) law of the parliament  

143. Within a stone’s throw  
(1) very far off  
(3) at a short distance  
(2) Within a certain radius  
(4) within a definite circumference  

29
144. Sang froid
(1) temper (2) irritation
(3) composure (4) anger

145. Panacea
(1) remedy for all diseases
(2) remedy for loss of appetite
(3) remedy for heart aliments
(4) remedy for disorder of pancreas

Directions (Question No. 146-150): Identify the part having an error.

146. (1) It was not desirable for him to prevent his wife from attending (2) anti-dowry demonstrations.
(3) to attend (4) No error.

147. (1) Hemant as well as his friends are going to participate in a political debate (2) Is going (3) To participate in a political debate (4) No error.

148. (1) It is one of those books which have been recommended (2) Which has been recommended (3) For specialists (4) In skin diseases.

149. (1) He charged ye of average quality (2) one hundred rupees (3) for six dozens oranges (4) of average quality

150. (1) He told me that he had completed the task (2) He has completed the task (3) I had given him the
(4) Previous day.

30 3,000
ROUGH WORK
रूफ कार्य
अभ्यासियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर
केवल नीचे-काली बाल-चाओट पेंस से ही लिखें)

1. प्रश्न पुस्तिका मिलने के तीन मिनटों के अंदर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है। पुस्तिका दोषपूर्ण पाये जाने पर इसकी एवं तत्काल कक्ष-निरीक्षक को देखकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें।

2. परीक्षा भवन में लिफाफा रहित प्रश्न-पत्र के अंतरिक्ष, लिखा या सादा कोई भी खुला कागज साथ में न लाये।

3. उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा उत्तर-पत्र नहीं दिया जायेगा। केवल उत्तर-पत्र का ही पूर्णता किया जायेगा।

4. अपना अनुमंका तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेंस से निर्धारित स्थान पर लिखें।

5. उत्तर-पत्र के प्रथम पृष्ठ पर पेंस से अपना अनुमंक क्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिखे वृत्तों को गाढ़ा कर दें। जहाँ-जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक तथा सेट का नंबर मिलते स्थानों पर लिखें।

6. ओ.एम. ऑर 0 एम. ऑर 0 पत्र पर अनुमंक क्रमांक, प्रश्नपत्रिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्नपत्रिका पर अनुमंक और ओ.एम. ऑर 0 पत्र संख्या के प्रतिविद्यार्थियों में उपरिलेख को अनुमति नहीं है।

7. उपयुक्त प्रश्नियों में कोई भी परीक्षार्थी निरीक्षक द्वारा प्रभावित होना चाहिए अनुमति यह एक अनुचित साधन का प्रयोग माना जायेगा।

8. प्रश्न-पुस्तिका में प्रश्न प्रश्न के वाक्याल्पक उत्तर दिये गये हैं। प्रश्न प्रश्न के वेक्स्लिक उत्तर के लिए आयक के उत्तर-पत्र की सम्बन्धित परिभाषा के साथमें दिखे गये वृत्त का उत्तर-पत्र के प्रथम पृष्ठ पर दिखे गये निर्देशों के अनुसार पेंस से गाढ़ा करें।

9. प्रश्न प्रश्न के उत्तर के लिए केवल एक ही वृत्त का गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अवधारणा एक वृत्त की अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।

10. ध्यान है कि एक वार स्थानी द्वारा अक्षय उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते, तो संबंधित परिभाषा के साथमें दिखे गये सभी वृत्तों को खाली छोड़े दें। ऐसे प्रश्नों पर शुरूआत अंक दिये जायेंगे।

11. राकार्य के लिए प्रश्न-पुस्तिका के मुख्यद्वीप के अंदर बाला पृष्ठ तथा उत्तर-पुस्तिका के अंतिम पृष्ठ का प्रयोग करें।

12. परीक्षा के उपाधि केवल ओ.एम. ऑर 0 उत्तर-पत्र परीक्षा भवन में जमा कर दें।

13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।

14. यदि कोई आप्यायिक परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विद्याविद्यालय द्वारा निर्धारित दंड का/की, भांगी होगी/होगी।