

Roll No: 2 2 1 8

Booklet Sl No: 9313

Time:90 Minutes

Full Mark:100

No. of items:100

No. of Pages:28

(including rough work)

SSS - 2017-18

PAPER - II

SET-C

ସମୟ: 90 ମିନିଟ

ପୂର୍ଣ୍ଣ ସଂଖ୍ୟା: 100

ପ୍ରଶ୍ନ ସଂଖ୍ୟା: 100

ପୃଷ୍ଠା ସଂଖ୍ୟା: 28

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you open the question booklet

1. A separate OMR Answer Sheet is supplied for writing the answers. Write down your application from no. & 11 digit roll number on it as per your Admission Card and darken the appropriate circles on the answer sheet..
2. Check that set code (A,B,C or D) is printed on the booklet and indicate your set code by blackening the appropriate circle in the OMR answer sheet.
3. Do not write anything in this Booklet except the Roll No. However you can use the blank pages provided for the rough work at the end of this booklet.
4. Start answering when you are told to do so. Do not turn the pages before that.
5. Answer all the questions. Each question has four probable answers of which one is correct. You have to choose the correct one and blacken your choice in the OMR answer sheet by a black/blue ball point pen. Use of pencil is not allowed. If your choice is second response then answer like this.



6. For wrong answer, there is no deduction of marks. One mark shall be awarded for each correct response.
7. No. Mark will be awarded for a question if a candidate darkens more than one choice.
8. Return the Answer Sheet only to the Invigilator as soon as the final bell rings. Ask for another Booklet if it is defective, before you start answering.
9. English version of the question paper will be considered as final if any dispute arises in the translated version.

ପରୀକ୍ଷାରୀଙ୍କ ପାଇଁ ନିର୍ଦ୍ଦେଶାବଳୀ

ପ୍ରଶ୍ନ ପୁସ୍ତିକା ଖୋଲିବା ପୂର୍ବରୁ ନିର୍ଦ୍ଦେଶାବଳୀ ଗୁଡ଼ିକୁ ଧ୍ୟାନପୂର୍ବକ ପଡ଼ି ।

1. ଉଚର ଲେଖିବା ପାଇଁ ଶାନ୍ତି ଅଲାଗା OMR ଉଚର କାଗଜ ଦିଆଯାଇଛି । ସେଥିରେ ବୁନ୍ଦର ଆଢ଼ମିଶନ୍ କାର୍ଟରେ ଲେଖାଯବା ଦରଖାସ୍ତ ଫର୍ମ ନମବି ଏବଂ ଏଗାର ଅକ୍ଷ ବିଶିଷ୍ଟ ରୋଲ ନଂ ଲେଖି ଏବଂ ଉଚର ଫର୍ମ ର ଉପଯୁକ୍ତ ଗୋଲେଇକୁ କଲା କର ।
2. ବୁନ୍ଦ ପ୍ରଶ୍ନ ପୁସ୍ତିକାରେ ପେଟ୍ କୋଡ଼ (A,B,C କିମ୍ବା D)ଲେଖି ଅଛି କ୍ରି ଲାହି ଯାଏ କରିନିଅ ଏବଂ ବୁନ୍ଦର ପେଟ୍ କୋଡ଼ଟିକୁ ଟିକ୍ଟିତ କରିବା ପାଇଁ OMR ଉଚର ଫର୍ମରେ ଉପଯୁକ୍ତ ଗୋଲେଇକୁ କଲା କର ।
3. ରୋଲ ନମବି ବ୍ୟାପାର ବ୍ୟାପାର ଅନ୍ୟ କିମ୍ବା ଏହି ପୁସ୍ତିକାରେ ଲେଖି ନାହିଁ । କିନ୍ତୁ ରୂପ କାମପାଇଁ ଉଦ୍ଦିଷ୍ଟ ନାଗନ୍ତରେ ରଘ୍ୟ କାମ କରିପାର ।
4. ଯେତେବେଳେ କୁହାୟିବ ଉଚର ଦେବାକୁ ଆଜମ କର । ତା ପୂର୍ବରୁ ପୃଷ୍ଠା ଗୁଡ଼ିକ ଓଲାଗାଏ ନାହିଁ ।
5. ସମ୍ପଦ ପ୍ରଶ୍ନର ଉଚର ଦିଆ ପ୍ରତ୍ୟେକ ପ୍ରଶ୍ନର ତାବୋହି ସମ୍ବାଧ୍ୟ ଉଚର ଦିଆଯାଇଛି ସେଥିରୁ ହେଉଛି ଗୋଟିଏ ଠିକ୍ ଉଚର । ଠିକ୍ ଉଚରଟି ବାହି ଉଚର କାଗଜରେ ଥିବା ଗୋଲେଇକୁ କଲା କର । ଏଥପାଇଁ ଦୁଇମାତ୍ର ଦ୍ୱାକ ବଲୁପାଷଣ ପେଟ୍ ବ୍ୟବହାର କରିଯାଇ । ପେଟ୍ ବ୍ୟବହାର କରିଯାଇବ ନାହିଁ । ଯଦି ବୁନ୍ଦ ଦ୍ୱାରା ନମବି ଗୋଲେଇ ନିକର ଉଚର ଗୋଲେଇ ବାହି ଦାହାହେଲେ ଏପରି କରିବ ।



6. ପ୍ରତ୍ୟେକ ଠିକ୍ ଉଚର ପାଇଁ ଏକ ନମବି ଦିଆଯିବ । ବୁନ୍ଦ ଉଚର ପାଇଁ ନମବି କରିଯାଇନାହିଁ ।
7. ଗୋଟିଏ ପ୍ରଶ୍ନ ପାଇଁ ଯଦି ଗୋଟିଏବୁ ଅଧିକ ଗୋଲେଇ କଲା କର ତାହାହେଲେ କୌଣସି ନମବି ଦିଆଯିବ ନାହିଁ ।
8. ଶେଷ ଘର୍ଷିତ ବାହିବା କଣ୍ଠି କେବଳ OMR ଉଚର କାଗଜ ନିର୍ଦ୍ଦେଶାବଳୀ ଦିଆ ।
9. ଅଧିକ ଅନୁବାଦରେ କୌଣସି ବୃତ୍ତିଥିଲେ ଉଚର କାଗଜ ବିବରଣୀକୁ ନିର୍ଣ୍ଣୟ କରି ଧରାଯିବ ।

Ask for another booklet if it is defective, before you start answering.

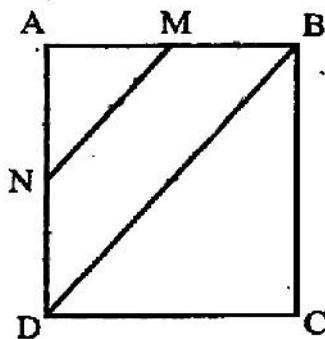
ବୃତ୍ତିଥିଲେ ଉଚର ଦେବା ପୂର୍ବରୁ କବଳାଇ ଦିଆ ।

1. If $\cos\theta + \sqrt{3}\sin\theta = \sqrt{2}$ and $0^\circ < \theta < 180^\circ$, then what is θ equal to ?
- 15° or 105°
 - 35° or 115°
 - 25° or 110°
 - 40° or 125°
2. If $f(x) = \sin x + \cos x$, then what is maximum value of $f(x)$?
- 1
 - $\sqrt{2}$
 - $\sqrt{3}$
 - 2
3. How much is the mean of the measures of all the interior angles of a pentagon ?
- 95°
 - 98°
 - 108°
 - 120°
4. If A (-1, 1) and B (3, -1) are the end points of one side \overline{AB} of square ABCD, then how many units will be the length of one of its diagonals ?
- 10
 - $\sqrt{10}$
 - 40
 - $\sqrt{40}$
5. What is the ratio in which the x - axis divides the line segment joining the points (3, -4) and (2, 6) internally?
- 2:3
 - 3:2
 - 4:3
 - 3:4
1. যদি $\cos\theta + \sqrt{3}\sin\theta = \sqrt{2}$ এবং $0^\circ < \theta < 180^\circ$ হোলে, θ র মান কেতে ?
- 15° বা 105°
 - 35° বা 115°
 - 25° বা 110°
 - 40° বা 125°
2. যদি $f(x) = \sin x + \cos x$ হোলে, $f(x)$ র পর্যাপ্ত সূচনা কেতে ?
- 1
 - $\sqrt{2}$
 - $\sqrt{3}$
 - 2
3. এক পঞ্চকুণির প্রতি অঙ্গু কোণসমূহ পরিমাণ মাধ্যমাক কেতে ?
- 95°
 - 98°
 - 108°
 - 120°
4. যদি A (-1, 1) ও B (3, -1) জ্যাতি এ ক্ষেত্রে ABCD র দুটি প্রতিকূল হৃতকী, তবে এহার জ্যাতি এ ক্ষেত্র কেবল কেতে একক হোব ?
- 10
 - $\sqrt{10}$
 - 40
 - $\sqrt{40}$
5. (3, -4) ও (2, 6) র দ্বয়ী ধৰ্য র ঘণ্যাঙ্ক রেখাঙ্কন কৃত ক্ষেত্রে অনুপাতের অন্তর্ভুক্ত কৰে ?
- 2:3
 - 3:2
 - 4:3
 - 3:4

6. The ratio of the height of a pillar and its shadow cast on the ground during a day is $1:\sqrt{3}$. What is the elevation of the sun at that time?
- A. 15°
 B. 30°
 C. 45°
 D. 60°
7. If the product of five consecutive integers is equal to one of them, then which greatest possible integer is likely to be contained in them?
- A. 1
 B. 4
 C. 6
 D. 10
8. If $2^{x+3} = 32$, then what is the value of 3^{6-x} ?
- A. 7
 B. 9
 C. 27
 D. 81
9. How many integers occur between 10 and 200 which are exactly divisible by 7?
- A. 27
 B. 25
 C. 23
 D. 21
10. If α and β are the roots of the equation $2x^2 - 7x - 3 = 0$, then what is the value of $(\alpha+3)(\beta+3)$?
- A. 10
 B. 12
 C. 15
 D. 18
6. ଗୋଟିଏ ଦିନର ଏକ ନିର୍ଦ୍ଦିଷ୍ଟ ସମୟରେ ଗୋଟିଏ ପ୍ରମାଣ ଭଜନ ଓ କୁମି ଉପରେ ତାହାର ଜାଇର ଦେଖ୍ୟର ଅନୁପାତ $1:\sqrt{3}$ ଅଟେ। ସେହି ସମୟରେ ପୂର୍ବୀକର ଭଜନ କେତେ ?
- A. 15°
 B. 30°
 C. 45°
 D. 60°
7. ଯଦି ପାଞ୍ଚଗତି କୁମିକ ପୂର୍ବ ସଂଖ୍ୟାର ପୁଣପାଳ ସେମାନଙ୍କ ମଧ୍ୟରୁ ଗୋଟିକ ସହ ସମାନ ହୁଏ, ତେବେ କେର୍ବ ବୃଦ୍ଧତା ପୂର୍ବସଂଖ୍ୟା ସେମାନଙ୍କ ମଧ୍ୟରେ ରହିବା ସମବ ?
- A. 1
 B. 4
 C. 6
 D. 10
8. ଯଦି $2^{x+3} = 32$ ହୁଏ, ତେବେ 3^{6-x} ର ମୂଲ୍ୟ କେତେ ?
- A. 7
 B. 9
 C. 27
 D. 81
9. 10 ଓ 200 ମଧ୍ୟରେ ଥିବା ପୂର୍ବ ସଂଖ୍ୟାମାନଙ୍କ ମଧ୍ୟରେ କେତୋଟି ସଂଖ୍ୟା 7 ଦ୍ୱାରା ବିଭାଗ୍ୟ ?
- A. 27
 B. 25
 C. 23
 D. 21
10. ଯଦି $2x^2 - 7x - 3 = 0$ ସମୀକରଣର ବାଜଦ୍ୱୟ α ଓ β ହୁଅଛି, ତେବେ $(\alpha+3)(\beta+3)$ ର ମାନ କେତେ ?
- A. 10
 B. 12
 C. 15
 D. 18

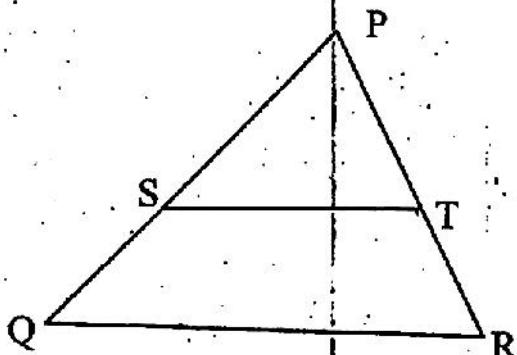
11. What is the H.C.F. of $x^3 - x^2 - 4x - 6$ and $x^2 - 2x - 3$?
- A. $x+1$
 B. $x-1$
 C. $x+3$
 D. $x-3$
12. What value will be obtained on simplifying $\frac{1}{\sqrt{6}+\sqrt{5}} + \frac{1}{\sqrt{9}+\sqrt{8}} + \frac{1}{\sqrt{7}+\sqrt{6}} + \frac{1}{\sqrt{8}+\sqrt{7}} + \sqrt{5}$?
- A. $3+\sqrt{5}$
 B. $3-\sqrt{5}$
 C. 3
 D. $\sqrt{5}$
13. If 'a' and 'b' are real numbers, for which of the following conditions a^2+b^2 reduces to zero?
- A. $a>0, b>0$
 B. $a=0, b=0$
 C. $a<0, b>0$
 D. $a>0, b<0$
14. What should be subtracted from each one of 21, 38, 55 and 106, so that the results of subtractions will be proportional?
- A. 4
 B. $4\frac{1}{2}$
 C. 6
 D. $6\frac{1}{2}$
11. $x^3 - x^2 - 4x - 6$ ഓ $x^2 - 2x - 3$ റെ പാശ്ചാത്യം ചെയ്യുന്നത് ?
- A. $x+1$
 B. $x-1$
 C. $x+3$
 D. $x-3$
12. $\frac{1}{\sqrt{6}+\sqrt{5}} + \frac{1}{\sqrt{9}+\sqrt{8}} + \frac{1}{\sqrt{7}+\sqrt{6}} + \frac{1}{\sqrt{8}+\sqrt{7}} + \sqrt{5}$ കു ഏറ്റവും കുറവാക്കണമെന്ന് മിനിമ ?
- A. $3+\sqrt{5}$
 B. $3-\sqrt{5}$
 C. 3
 D. $\sqrt{5}$
13. 'a' ഓ 'b' കാലാക്ഷാഖയിൽ ഹരാത്യാഹാ ശ്രദ്ധാരാ നിസ്തുപ്പു കേരം പാര്വ്വാനാരി a^2+b^2 രൂപാന്തരം ശുഭമാക്കുന്നത് ?
- A. $a>0, b>0$
 B. $a=0, b=0$
 C. $a<0, b>0$
 D. $a>0, b<0$
14. 21, 38, 55 ഓ 106 പ്രത്യേകരു കേരം പാശ്ചാത്യാ ചിന്തയാഗ കുലെ, ചിന്തയാഗ പാര്വ്വാനാരാ പാശ്ചാത്യാ ചിന്തയാഗ കുലെ ?
- A. 4
 B. $4\frac{1}{2}$
 C. 6
 D. $6\frac{1}{2}$

15. In the given figure, ABCD is a square in which M and N are the mid-points of the sides \overline{AB} and \overline{AD} respectively. How many square units is the area of MNDB quadrilateral, if each side of the square is 2 units long?

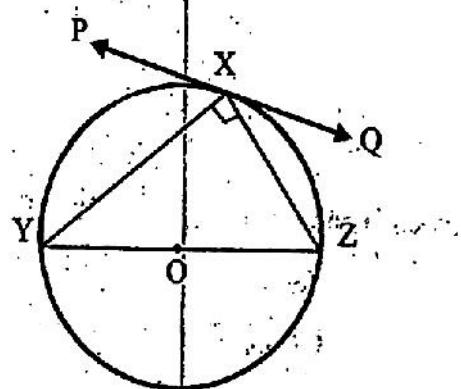


15. ଦିଆଯାଇଲେ ABCD ଏକ ବର୍ଗଟିଥାଏ । M ଓ N ଯଥାକୁଣ୍ଠେ
 \overline{AB} ଓ \overline{AD} ବାହୁଦୟର ମଧ୍ୟବିନ୍ଦୁ । ଯଦି ବର୍ଗଶୈତାଳ ପ୍ରତ୍ୟେକ
ବାହୁ ଦେଖିଯେ 2 ଏକକ ମୂଲ୍ୟ, ତେବେ MNDB ବାହୁଦୟର
ଶୈତାଳ କେତେ ବର୍ଗ ଏକକ ହେବ ?
- A. 1.0
B. 1.5
C. 2.0
D. 2.5
16. The sum of the lengths of all the edges of a cube is 6 cm. Then what is the volume of the cube in cubic centimetre?
A. $\frac{1}{36}$
B. $\frac{1}{12}$
C. $\frac{1}{8}$
D. $\frac{1}{4}$
16. ଗୋଟିଏ ସମଘନର ଧାର ଗୁଡ଼ଙ୍କର ଦେଖିଯିର ସମ୍ପତ୍ତି
6 ସେ.ମି. । ତେବେ ଘନ ସେଣିଟର ଏକଳରେ ସମଘନଟିର
ଆୟତନ କେତେ ହେବ ?
A. $\frac{1}{36}$
B. $\frac{1}{12}$
C. $\frac{1}{8}$
D. $\frac{1}{4}$
17. If each of the length and breadth of a rectangle is increased by 100%, then what will be the percentage increase in its area?
A. 100
B. 200
C. 300
D. 400

18. In the given figure, $\overline{ST} \parallel \overline{PQ}$ and $\frac{PS}{PQ} = \frac{3}{5}$. If the area of $\triangle PST$ is 45 sqcm, then what is the area of the trapezium $STRQ$ in sqcm unit?



- A. 60
B. 80
C. 100
D. 125
19. In the given figure, O is the centre of the circle XYZ and \overline{PQ} is the tangent at X. If $m\angle XYZ=30^\circ$, what is the measure of $\angle PXY$?



- A. 30°
B. 45°
C. 60°
D. 90°

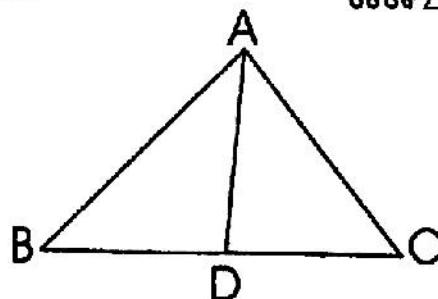
18. ଦିଆଇରେ, $\overline{ST} \parallel \overline{PQ}$ ଏବଂ $\frac{PS}{PQ} = \frac{3}{5}$ । $\triangle PST$ ର କ୍ଷେତ୍ରଫଳ 45 ବର୍ଗସେମି ହେଲେ, ଟ୍ରାପ୍ରିଜମ $STRQ$ ର କ୍ଷେତ୍ରଫଳ କେତେ ବର୍ଗସେମି ହେବ ?

- A. 60
B. 80
C. 100
D. 125

19. ଦିଆଇରେ ଥିବା XYZ କେତେ କ୍ଷେତ୍ର ଏବଂ X ବିନ୍ଦୁରେ ପୂର୍ଣ୍ଣ କ୍ଷେତ୍ରଫଳ କେତେ \overline{PQ} । $m\angle XYZ=30^\circ$ ହେଲେ, $\angle PXY$ ର ପରିମାପ କେତେ ?

- A. 30°
B. 45°
C. 60°
D. 90°

20. In the given figure, \overline{AD} is a median of $\triangle ABC$. If $AD=4$ cm, $BD=3$ cm and $AC=5$ cm, then what is the area of $\triangle ABC$ in sqcm?



- A. 9
 - B. 12
 - C. 15
 - D. 16
21. If the density of water at 4°C is 1 gm/cc^6 in C.G.S. units; how much would it be in M.K.S. units?

- A. 1 kg/cc
- B. 1 kg/m^3
- C. 100 kg/m^3
- D. 1000 kg/m^3

22. A car travels with a constant speed of 30 km/hr for 15 min. and then quickly speeds up to 50 km/hr to be maintained for 30 min. Then its average speed in km/hr would be;

- A. 43.33 km/hr
- B. 40 km/hr
- C. 45 km/hr
- D. 50 km/hr

20. ଦିଆଯାଇଲେ, $\triangle ABC$ ର \overline{AD} ଏକ ମଧ୍ୟମାଳି ଯାହିଁ
 $AD=4$ ସେ.ମି., $BD=3$ ସେ.ମି. ଓ $AC=5$ ସେ.ମି. ହୁଏ,
ତେଣୁ $\triangle ABC$ ର କ୍ଷେତ୍ରଫଳ କେତେ ବର୍ଷେ.ମି. ?

- A. 9
- B. 12
- C. 15
- D. 16

21. 4°C ତାପମାତ୍ରାରେ ଜଳର ସାନ୍ତ୍ବା C.G.S. ଏକକରେ
1 gm/cc^6 ହେଲେ M.K.S. ଏକକରେ ଏହା କେତେ
ହେବ ?

- A. 1 kg/cc
- B. 1 kg/m^3
- C. 100 kg/m^3
- D. 1000 kg/m^3

22. ଏକ କାର ଘରୀ ପ୍ରତି 30 km ଦେଗରେ 15 ମିନିଟ୍ ଯାଇ
କଲାପରେ ଅଟିଶାୟ ତାର ବେଗକୁ ଘରୀ ପ୍ରତି 50 km କୁ ଦୂରି
ନାହିଁ ସେହି ଦେଗରେ 30 ମିନିଟ୍ ପର୍ଯ୍ୟନ୍ତ ଗଠି କଲା।
ତା'ହେଲେ କାରଟିର ହାରହାରି ବେଗ ଘରୀ ପ୍ରତି କେତେ
ମିନିଟିର ହେବ ?

- A. 43.33 km/hr
- B. 40 km/hr
- C. 45 km/hr
- D. 50 km/hr

23. A bullet fired into a wall loses half of its initial speed after entering through 1cm into the wall. How far further can it move before coming to rest?
- A. 1/2 cm
 B. 1/3 cm
 C. 2/3 cm
 D. 1 cm
24. Train A of length 120m moving with a velocity 20 m/sec is about to cross another train B of length 130m, moving towards it from opposite direction with a speed of 30 m/sec. Then find the time duration during which the trains would cross each other.
- A. 36 sec.
 B. 5 sec.
 C. 38 sec.
 D. 40 sec.
25. A pump draws 1000kg of water per minute from a well 12m deep. Then the power of the pump in H.P. unit would be very nearly equal to _____ (given $g=10 \text{ m/s}^2$)
- A. 2.0
 B. 2.3
 C. 2.63
 D. 2.5
26. A sound wave of frequency 1KHz takes $10/3$ seconds to travel a distance of 1 km. Then its wavelength would be _____
- A. 20 cm
 B. 200 cm
 C. 300 cm
 D. 30 cm
23. এক প্রাণীরকু লাগ্যে করি মিঠায়াকথুবা এক বহুক গুলি প্রাণীর 1cm রেডিকেল পরে তাহার বেগ প্রারম্ভিক বেগের অধা হোকথুলে; গুলি আর জেনে বাট্টয়াল অক্ষিয়িত ?
- A. 1/2 cm
 B. 1/3 cm
 C. 2/3 cm
 D. 1 cm
24. 120 মিট'র দৈর্ঘ্যে বিশিষ্ট এক ট্রেন 'A', 20 m/sec বেগের গতি করুথুবাবেলে বিপরীত দিগ্রী 30 m/sec বেগের আয়ুথুবা 130 মিট'র দৈর্ঘ্যের অন্য এক ট্রেন 'B'ক অক্ষিকুম করিবাকু কেতে সময় লাগিত ?
- A. 36 sec.
 B. 5 sec.
 C. 38 sec.
 D. 40sec.
25. এক পাঞ্জ 12 মিট'র গরাইর এক কৃথুবু পুতি মিনিগ্রে 1000 kg র পাণি উত্তোলিত কেবে পাঞ্চটির কার্যকরা ক্ষমতা অণ্ডেক্ট (H.P.) এনজে জেনে হোব। এতামে ($g=10 \text{ m/s}^2$)
- A. 2.0
 B. 2.3
 C. 2.63
 D. 2.5
26. এক ধূমি চৱাগৱ আভুতি 1KHz অটে। 1 km দূৰত অক্ষিকুম করিবাকু যদি এহাকু $10/3$ ঘেনেও লাগে, কেবে এহার চৱাগৱ দৈর্ঘ্যে জেনে হোব ?
- A. 20 cm
 B. 200 cm
 C. 300 cm
 D. 30 cm

27. A body when floats in water; $\frac{1}{3}$ rd of its volume remains outside water. When it floats in another liquid, $\frac{3}{4}$ th of its volume remains outside the liquid. Then the density of the liquid is;
- $\frac{9}{4} \text{ g/cc}$
 - $\frac{8}{3} \text{ g/cc}$
 - 4 g/cc
 - $\frac{3}{8} \text{ g/cc}$
28. An object is placed on the $2F$ position of a convex lens. The magnification (m) produced by the lens is;
- $m > 1$
 - $m < 1$
 - $m = 1$
 - None of these
29. A bi-convex lens is split vertically into two equal parts so that two plano-convex lenses are formed. If the focal length of the bi-convex lens be ' f ', then the focal length of each of the plano-convex lenses would be;
- f
 - $f/2$
 - $2f$
 - ∞
30. Which of the following statements is correct for a concave mirror?
- Always produces real image only
 - Always produces virtual image only
 - Can produce real and virtual images
 - Cannot produce real image at all.
27. এক বস্তুটি জলের ভাষ্যালাবেলে এহার আয়তনের এক দৃশ্যমাণ জল উপরক থাএ। নিচু এহা থল্য এক তেলপদার্থের ভাষ্যালাবেলে এহার আয়তনের ($\frac{3}{4}$) ভাগ তেল পদার্থ উপরক থাএ। তেবে যে তেলপদার্থের পাত্রতা কেতে ?
- $\frac{9}{4} \text{ g/cc}$
 - $\frac{8}{3} \text{ g/cc}$
 - 4 g/cc
 - $\frac{3}{8} \text{ g/cc}$
28. এক উজল যাবকাতের $2F$ স্থানের এক বস্তু রশাগলা। এহার প্রতিবিম্ব পর্যবেক্ষণে এতারে হোলথু পরিবর্তন(m) হোব;
- $m > 1$
 - $m < 1$
 - $m = 1$
 - উপরোক্ত কের্ট নুচ্ছে।
29. উজষ পার্শ্ব প্যামুলের উজল ধূবা (bi-convex) এক যাবকাতকুল রাবরে সমান দূরত্বে নীরাগলা যাবারা দূরগোত্র পরকাত দৃষ্টিহোলা। যাহাকাত এক পাখ যমজে ও অন্যপাখটি উজল। যদি মূল যরকাতটির ফোকুস দূরতা ' f ', তেবে প্রত্যেক নৃতন যাবকাতের ফোকুস দূরতা হোব;
- f
 - $f/2$
 - $2f$
 - ∞
30. এক অবকল(concave) দৰ্পণ পার্শ্ব নিম্নোক কেতে ঠিক।
- পর্ণতা কেবল বাপ্তক প্রতিবিম্ব দৃষ্টি করে।
 - পর্ণতা কেবল আভাসা প্রতিবিম্ব দৃষ্টি করে।
 - উজষ বাপ্তক এবং আভাসা প্রতিবিম্ব করিপাবে।
 - আভো বাপ্তক প্রতিবিম্ব করিপাবে নাহি।

31. An electric current of 5 amperes is divided into three branches, along three wires of same material with same cross-section but with their lengths in the proportion of 1:2:3. Then the current in the middle branch will be;
- $\frac{30}{11}$ A
 - $\frac{10}{11}$ A
 - $\frac{15}{11}$ A
 - 2.5A
32. An 80watt lamp is connected to a 220 volt power supply. Its resistance is;
- 1210Ω
 - 600Ω
 - 605Ω
 - 484Ω
33. Two resistances 10Ω and 3Ω are connected in parallel across a battery. If there is a current of 0.2A in the 10Ω resistor, the emf of the battery will be;
- 2 volt
 - 2.2 volt
 - 1.8 volt
 - 2.6 volt
34. Which of the following has maximum number of molecules?
- 7 grams nitrogen (g)
 - 23 grams nitrous oxide (g)
 - 2 grams Hydrogen (g)
 - 16 grams oxygen (g)
31. 5A ବିଦ୍ୟୁତ୍ସ୍ରୋତ ଟିନିଗୋଟି ଧାରରେ ଚିନୋଟି ଶାଖା ଚାରରେ ବାର୍ଷି ହୋଇଗଲା । ଶାଖା ଚାର ଚିନୋଟି ସମାନ ବସ୍ତୁ ଥାଏ ସମାନ ପ୍ରସ୍ତୁତେବର ହୋଇଥିଲାବେଳେ ସେମାନଙ୍କର ଦେଇଁଥିର ଅନୁପାତ 1:2:3. ତେବେ ମର୍ତ୍ତି ଚାରଟିରେ ବିଦ୍ୟୁତ୍ ସ୍ରୋତର ପରିମାଣହେବ;
- $\frac{30}{11}$ A
 - $\frac{10}{11}$ A
 - $\frac{15}{11}$ A
 - 2.5A
32. ଏକ 80 ଓର୍ଟ ବିଦ୍ୟୁତ୍ ବଲ୍ବ 220 volt ରୁ ସହିତ ସଂଯୋଗ କରାଯାଇଛି । ବଲ୍ବଟିର ବିଦ୍ୟୁତ୍ ପ୍ରତିରେଖକ କେତେ ?
- 1210Ω
 - 600Ω
 - 605Ω
 - 484Ω
33. 10Ω ଏବଂ 3Ω ବିଶିଷ୍ଟ ଦୁଇଗୋଟି ପ୍ରତିରେଖକୁ ସମାନର ଭାବେ ଏକ ବ୍ୟାଟେରୀ ସହିତ ସଂଯୋଗ କରାଯାଇଛି । ଯଦି 10Ω ଚାରରେ 0.2A ବିଦ୍ୟୁତ୍ ସ୍ରୋତ ପ୍ରତିରେ ଦୁଃଖ ତେବେ ବ୍ୟାଟେରୀର emf କେତେ ହେବ ?
- 2 volt
 - 2.2 volt
 - 1.8 volt
 - 2.6 volt
34. ନିମ୍ନଲିଖିତ ମର୍ଯ୍ୟାନ୍ କେଉଁଟିରେ ଅଣୁବାଣ୍ୟ ସର୍ବଧୂଳି ?
- 7 ଗ୍ରାମ୍ ପରିଷାରଜାନ ଗ୍ୟାସ୍
 - 23 ଗ୍ରାମ୍ ନାଇଟ୍ରୋସ୍ ଅକସାଇଡ୍ ଗ୍ୟାସ୍
 - 2 ଗ୍ରାମ୍ ଉଦ୍ଜାନ ଗ୍ୟାସ୍
 - 16 ଗ୍ରାମ୍ ଅମ୍ବଜାନ ଗ୍ୟାସ୍

35. Which of the following pair is isoelectronic?
- CO_2, NO_2
 - NO_2, CO_2
 - CO, CN^-
 - SO_2, CO_2
36. Which of the following is not an exothermic reaction?
- $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
 - $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$
 - $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$
 - $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$
37. Select the incorrect statement.
- C_3H_8 does not have any isomer.
 - HCOOCH_3 and CH_3COOH are not same Organic compounds
 - There is no organic compound with formula CH_2O
 - C_3H_4 has two π -bonds
38. What is the correct order of P^{H} of aqueous solution of the following salts?
- $\text{NaCl} = \text{Na}_2\text{CO}_3 = \text{NH}_4\text{Cl}$
 - $\text{NaCl} < \text{Na}_2\text{CO}_3 < \text{NH}_4\text{Cl}$
 - $\text{NH}_4\text{Cl} < \text{Na}_2\text{CO}_3 < \text{NaCl}$
 - $\text{NH}_4\text{Cl} < \text{NaCl} < \text{Na}_2\text{CO}_3$
39. Which of the following has oxygen atom in zero oxidation number?
- Hydrogen peroxide
 - Ozone
 - Water
 - Oxygen difluoride
35. ଏମାଳକ ମଧ୍ୟ କେଉଁ ଯୋଡ଼ିବି ସମାଜଲେନ୍ଦ୍ରିୟ ?
- CO_2, NO_2
 - NO_2, CO_2
 - CO, CN^-
 - SO_2, CO_2
36. କେଉଁ ରାଗାଧିକ ପ୍ରକ୍ରିୟା ତାପ ରହୁଥାନ୍ତି ?
- $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
 - $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$
 - $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$
 - $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$
37. କୁଳରତ୍ନିକୁ ବାହୀ
- C_3H_8 ରକୋଣସି ସମାବସ୍ଥବନାହିଁ
 - HCOOCH_3 , CH_3COOH ଏକ କେଂକ ଯୌରିକର ସଂକେତ ନାହିଁ
 - CH_2O ସଂକେତରେ କୋଣସି କୈତିକ ଯୌରିକ ନାହିଁ
 - C_3H_4 ରେ ଦୂର୍ଭାଗ୍ୟ ଅନ୍ତିମ ଅଛି ।
38. ନିମ୍ନରେ ଥୁବା ଲବଣ ଶୁଦ୍ଧିକର ଜଳାୟ ଦ୍ରୁତତାର ସଠିକ୍ P^{H} କ୍ରମ କେଉଁ ?
- $\text{NaCl} = \text{Na}_2\text{CO}_3 = \text{NH}_4\text{Cl}$
 - $\text{NaCl} < \text{Na}_2\text{CO}_3 < \text{NH}_4\text{Cl}$
 - $\text{NH}_4\text{Cl} < \text{Na}_2\text{CO}_3 < \text{NaCl}$
 - $\text{NH}_4\text{Cl} < \text{NaCl} < \text{Na}_2\text{CO}_3$
39. ନିମ୍ନ ମଧ୍ୟ କେଉଁରେ ଅମୃତାଳି ପରମାଣୁର କାରଣ ସଞ୍ଚୟ ଶୁନ ?
- ହାଇଡ୍ରୋଜେନ୍ ଫେଲକ୍ରାଇଡ୍
 - ଓଜେନ୍
 - ଜଳ
 - ଆକ୍ଷନ୍ ଡାକ୍ଟ୍ରୋଗାଇଡ୍

40. Which of the following shows addition reaction?
- C_2H_6
 - C_3H_6
 - CH_4
 - C_3H_8
41. In order to prepare hard water from pure water which of the following salt may be added?
- $CaCl_2$
 - $MgCl_2$
 - $MgSO_4$
 - All of these
42. Gases causing global warming are _____.
- CO_2, CH_4, N_2, O_2
 - CO_2, CH_4 , water vapour
 - CO_2, CH_4, N_2, O_2 and water vapour
 - CO_2, CO, CH_4, N_2
43. 'X' is a substance which is soluble in water and its aqueous solution turns red litmus blue and produces H_2 on reaction with zinc. It is prepared by electrolysis of $NaCl$ (aq.). What is X?
- HNO_3
 - $NaClO_3$
 - $NaOH$
 - NH_4OH
44. Place of gold in modern periodic table is _____.
- s-block
 - p-block
 - d-block
 - f-block
40. ନିମ୍ନମଧ୍ୟରୁ କେଉଁ ଗୋଟିକ ଯୋଗ ପ୍ରତିକ୍ରିୟା କରିଥାଏ ?
- C_2H_6
 - C_3H_6
 - CH_4
 - C_3H_8
41. ଶୁଣ୍ଡ ଜଳକୁ 'ଆଗଦଳ' ରେ ପରିଣତ କରିବା ପାଇଁ କେଉଁ ଲବଣ୍ୟ ଦ୍ୱାରା କରାଯାଇପାରେ ?
- $CaCl_2$
 - $MgCl_2$
 - $MgSO_4$
 - ଏଗୁଡ଼ିକ ସବୁ
42. କାର୍ବୋଟିକ ଉତ୍ସତା ସୃଷ୍ଟି କରୁଥିବା ପାଇସମ୍ଭବ ହେଲା _____.
- CO_2, CH_4, N_2, O_2
 - CO_2, CH_4 , ଜଳୀୟ ବାସ୍ତବ
 - CO_2, CH_4, N_2, O_2 ଏବଂ ଜଳୀୟ ବାସ୍ତବ
 - CO_2, CO, CH_4, N_2
43. 'X' ଜଳର ଦୁଇଣୀୟ । ଏହାର ଜଳୀୟ ଦୁଇଣ ଲାଲ ଲିଚିମସକୁ ଲାଲକରେ ଏବଂ zinc ସହିତ ପ୍ରତିକ୍ରିୟା କରି H_2 ଉପରୁ କରେ । ଏହା $NaCl$ ର ଜଳୀୟ ଦୁଇଣକୁ ବିଦ୍ୟୁତ୍ ବିଶ୍ଵେଷଣ ପଦିତରେ ପ୍ରାସ୍ତୁତ କରାଯାଏ । X ହେବାକୁ _____.
- HNO_3
 - $NaClO_3$
 - $NaOH$
 - NH_4OH
44. ଆଧୁନିକ ପର୍ଯ୍ୟୁକ୍ତ ସରଣାରେ ସୁନାର ପ୍ଲାଟିନମ୍ _____.
- s-block
 - p-block
 - d-block
 - f-block

45. Which of the following has the formula KO_2 ?

- A. Potassium suboxide
- B. Potassium peroxide
- C. Potassium superoxide
- D. Kalium oxide

46. IUPAC name of $CH_2 = CH - \begin{array}{c} CH_3 \\ | \\ Br \end{array}$ is

- A. 3-Bromo-3-methylprop-1-ene
- B. 3-Bromobut-3-ene
- C. 2-Bromobut-3-ene
- D. 2-Bromoprop-1-ene

47. Which of the following organisms belongs to the kingdom monera?

- A. Amoeba
- B. Parameium
- C. Mycoplasma
- D. Diatom

48. What is the function of phloem parenchyma?

- A. Growth
- B. Cell division
- C. Storage
- D. Transport of food materials

49. Which of the following increases the water holding capacity of the soil?

- A. Bloom
- B. Clay
- C. Humus
- D. Sand

45. KO_2 കേര്ണയോജിക്കര ഫാലേറ ?

- A. പോഗസിമസ്വബ്ലക്സാഡ്ര
- B. പോഗസിമസ്പേരെക്സാഡ്ര
- C. പോഗസിമസ്പുപരാബ്ലക്സാഡ്ര
- D. ക്യാലിസിമഥ്ലസാഡ്ര

46. $CH_2 = CH - \begin{array}{c} CH_3 \\ | \\ Br \end{array}$ റിപാക് നാമം ?

- A. 3-Bromo-3-methylprop-1-ene
- B. 3-Bromobut-3-ene
- C. 2-Bromobut-3-ene
- D. 2-Bromoprop-1-ene

47. നിമ്മോള കേര്ണ ഒരു മോഡേരാ ഭർഷാ അടബുള ?

- A. ഏമിബാ
- B. പാരാമിസിമസ്
- C. മാരകോപ്പൂളമാ
- D. താരാച്ചമ്പ

48. ഫ്ലോം പാരേന്റക്സാ കേര്ണ കാർബിയോഫിജൻ കരേ ?

- A. ദൃഢി
- B. കോൺ ടിരാക്സി
- C. സംരക്ഷണി
- D. ശാഖാ പ്രത്രണി

49. നിമ്മോള കേര്ണ ഉപാധന മൃദ്ധികാര കണ്ഠാരണ ക്ഷമതാകു ബുളി കരാം ?

- A. ഫ്ലോം
- B. കാദൂൾ
- C. ഹ്യൂമസ്
- D. ബാലങ്കാ

50. Which of the following is not necessary for light reaction in photosynthesis.
- Light
 - Carbondioxide
 - Water
 - Chlorophyll
51. In the absence of oxygen which product is formed from pyruvic acid in muscle cells?
- Ethanol
 - Carbondioxide and water
 - Lactic acid
 - Methyl alcohol
52. Which of the following is not a parthenocarpic fruit?
- Banana
 - Apple
 - Orange
 - Mango
53. Which revolution played important role in the production of new varieties of food crops?
- White revolution
 - Red revolution
 - Green revolution
 - None of the above
54. The intercellular space of which tissue is filled with lignin?
- Collenchyma
 - Parenchyma
 - Arenchyma
 - Schlerenchyma
50. ଆଲୋକ ସଂଶେଷଣର ଆଲୋକ କ୍ରିୟା ନିମିତ୍ତ ନିମ୍ନଲିଖିତ କେଉଁଟି ଅନାବଶ୍ୟକ ?
- ଆଲୋକ
 - ଅଙ୍ଗାରକାମ୍ବ
 - ଜଳ
 - ପତ୍ରହରିତ
51. ଅମୁକାନର ଅନୁପସ୍ଥିତର ପାଇରୁଚିକ ଅମୁରୁ ମାସପେଣ୍ଠା କୋଷରେ କେର୍ବିଯୁଦ୍ଧ ତିଆରି ହୁଏ ?
- ଇଥାନଲ୍
 - ଅଙ୍ଗାରକାମ୍ବ ଓ ଜଳ
 - ଲ୍ୟାକ୍ଟିକ ଅମ୍ବ
 - ମିଥାଇଲ୍ ଆଲକୋହଲ୍
52. ନିମ୍ନୋକ୍ତ ଫଳମୁଦ୍ରିତ ମଧ୍ୟ କେଉଁଟି ଅସମାନ୍ତିତ ଫଳ ନୁହେଁ ?
- କଦଳା
 - ଆପଲ୍
 - କମଳା
 - ଆମ
53. ନୃତ୍ୟ କିସମର ଖାଦ୍ୟଶବ୍ୟ ଉପ୍ରଦାନ ପାଇଁ କେର୍ ବିପୁଲ ଗୁରୁତ୍ୱପୂର୍ଣ୍ଣ ଭୂମିକା ଥିଲା ?
- ଶ୍ଵେତ ବିପୁଲ
 - ଲୋହିତ ବିପୁଲ
 - ସରୁଳ ବିପୁଲ
 - ଉପରଲିଖିତ କେଉଁଟି ନୁହେଁ
54. କେର୍ ଟିସ୍ୱର ଅଞ୍ଚଳୋକୀୟ ପ୍ରାନ୍ତ ଲିବନ୍ତିନ୍ ଦ୍ୱାରା ପରିପୂର୍ଣ୍ଣ ହୋଇଥାଏ ?
- କୋଲେନ୍ କାଇମା
 - ପାଗେନ୍ କାଇମା
 - ଆଗେନ୍ କାଇମା
 - ସେଲେରେନ୍ କାଇମା

55. What is the phenotypic ratio of F_2 generation of Mendel's dihybrid cross?
- $(3:1)^2$
 - $(1:2:1)^2$
 - $(1:2:1)^3$
 - 3:1
56. How many secondary spermatocytes are required to form 400 spermatozoa?
- 100
 - 200
 - 300
 - 400
57. Which of the following hormone is the other name of LH?
- TSH
 - ICSH
 - ACTH
 - FSH
58. Which vitamin is produced by Escherichia coli present in our intestine?
- B_6
 - B_7
 - B_9
 - B_{12}
59. What is the name of the third ventricle of human brain?
- Diocoel
 - Rhomboocoel
 - Rhinocoel
 - Paracoel
55. മെൻഡലക്ക് സാധ്യനു അപേക്ഷയ്ക്ക് ദിസ്ക്രീഷൻ വരെ F_2 പിടിച്ചെടുത്താൽ അനുസരിച്ച് കേതെ?
- $(3:1)^2$
 - $(1:2:1)^2$
 - $(1:2:1)^3$
 - 3:1
56. 400 ശുക്രാന്തുകളും ഹോപാർട്ടുകളും കേതെ ദിസ്ക്രീഷൻ ആവശ്യമാണ്?
- 100
 - 200
 - 300
 - 400
57. ലിപ്പോക്രോമാറ്റിക് മധ്യരൂപത്തെ LH അന്വേഷിക്കുന്നതിനുശേഷം ?
- TSH
 - ICSH
 - ACTH
 - FSH
58. ആമാ അടിസ്ഥാനത്തിൽ ഉണ്ടായിരുന്ന ഒരു പ്രായീനിക പ്രസ്തുതി കരിത്താണ് Escherichia coli നെറ്റി ചിത്രീകരിച്ചതും കരിത്താണ്?
- B_6
 - B_7
 - B_9
 - B_{12}
59. മണിക്കൂർ ദൂതായ നിലയ്ക്കരയാമക്ക് ശാഖകൾ ?
- കാരാബില
 - വൈനോബില
 - വാരമോബില
 - പാരമോബില

- 60. Which of the following statement is not correct?**
- Flow of energy is unidirectional
 - Lindeman postulated ten percent law
 - Manganese is a macronutrient
 - Protein is a macronutrient.
- 61. Which of the following factor is a produced means of production?**
- Land
 - Labour
 - Capital
 - Organisation
- 62. In 2016 Human Development Report published by UNDP, India has been placed at _____**
- 130th position with 0.609 score
 - 135th position with 0.608 score
 - 131th position with 0.624 score
 - 132th position with 0.624 score
- 63. Which of the following is not true with respect to Pradhan Mantri Jan Dhan Yojana?**
- Zero balance account
 - Life coverage of Rs.30000/-
 - Accidental insurance of rupees one lakh
 - No interest on deposit
- 64. Which of the following deposits with bank offers cheque facility?**
- Time deposit
 - Recurring deposit
 - Demand deposit
 - None of the above.
- 60. ନିମ୍ନୋକ୍ତ କେର୍ତ୍ତିଟି ଠିକ୍ ନୁହେଁ ?**
- ଶତିର ପ୍ରବାହ ଏକମୁଖୀ
 - ଲିଂଡେମାନ୍ ଦଶ ପ୍ରତିଶତ ନିୟମପ୍ରଣାଳୀ କର୍ତ୍ତାଙ୍କୁ
 - ମାଙ୍ଗାନିକ୍ ଏକ ସ୍ଥଳ ପୋଷକ
 - ପୁଣ୍ଡିଯାର ଏକ ସ୍ଥଳ ପୋଷକ
- 61. ନିମ୍ନଲିଖିତ ମଧ୍ୟରୁ ଉପାଦନର କେର୍ତ୍ତି ସାଧନ ଉପାଦନର ଉପାଦିତ ମାଧ୍ୟମ ଅଟେ ।**
- ଉଦ୍‌ଧାରଣା
 - ଶ୍ରମ
 - ପୁଣ୍ଡି
 - ସଂଗଠନ
- 62. UNDP ଦ୍ୱାରା ପ୍ରକାଶିତ 2016 ମାନବ ବିଜାଣ ବିବରଣୀରେ ଭାରତର ସ୍ଥାନ _____**
- 130 ତମ ସ୍ଥାନ 0.609 ସ୍ଥାର ସହ
 - 135 ତମ ସ୍ଥାନ 0.608 ସ୍ଥାର ସହ
 - 131 ତମ ସ୍ଥାନ 0.624 ସ୍ଥାର ସହ
 - 132 ତମ ସ୍ଥାନ 0.624 ସ୍ଥାର ସହ
- 63. ନିମ୍ନୋକ୍ତ କେତେ ପ୍ରଧାନମାତ୍ରା ଜନଧନ ଯୋଜନା ପାଇଁ ପ୍ରୟୁକ୍ଷ ନୁହେଁ ?**
- ଶ୍ରମ୍ୟ ଜମାଗାତା
 - 30000 ହଜାର ଟଙ୍କାର ଜାତନବୀମା ବାଣି ଅମାନତ
 - ୫କଳିଷ୍ଟ ଟଙ୍କାର ଦୂର୍ଘଟଣା ବାମା ଅମାନତ
 - ଜମାରାଶି ଉପରେ ସ୍ଵଧନଦେବା
- 64. ବ୍ୟାକର ନିମ୍ନଲିଖିତ ଜମାଚୁଡ଼ିକ ମଧ୍ୟରୁ କେତେଟିରେ ଚେଳ୍କ ସୁତ୍ତିଧା ରହିଥାଏ ?**
- ସ୍ଥାଯୀ ଜମା
 - ସୁନାଃ ସଂଘାତ ଜମା
 - ଚାହିଦା ଜମା
 - ଉପରୋକ୍ତ ମଧ୍ୟରୁ କେତେଟି ନୁହେଁ ?

65. GDP is the total volume of _____ product produced during an accounting year in a country.
- All goods and services
 - All final goods and services
 - All intermediate goods and services
 - All intermediate and final goods & services
66. Public Distribution System means distribution of essential commodities to a large number of people through a network of fair-price shops on a recurring basis. The commodities distributed under the system are
- (i) Wheat, (ii) Rice, (iii) Pulses, (iv) Sugar
- (i), (ii) and (iii)
 - (i), (ii) and (iv)
 - (ii), (iii) and (iv)
 - (i), (iii) and (iv)
67. Consumer Protection Act, 1986 provides effective safeguards against different types of exploitations. These exploitations are in the form of
- (i) Defective goods
 - (ii) Deficient services
 - (iii) Unfair trade practices
- Which one is true?
- (i) and (ii)
 - (ii) and (iii)
 - (i), (ii) and (iii)
 - (i) only
65. ଗ୍ରେଟିଏ କେଣରେ ଏକ ରାଜ୍ୟ ବର୍ଷରେ ଉପାଦିତ ହେବାର
ମୋଟ ମୂଲ୍ୟକୁ GDP କୁହାଯାଏ।
- ସମସ୍ତ ଦ୍ରୁତ୍ୟାବ୍ଦୀ ସେବା ଓ ଦ୍ରୁତ୍ୟ
 - ସମସ୍ତ ଚାନ୍ଦାତ ସେବା ଓ ଦ୍ରୁତ୍ୟ
 - ସମସ୍ତ ଅନ୍ତବର୍ଗ ଦ୍ରୁତ୍ୟ ସେବା
 - ସମସ୍ତ ଚାନ୍ଦାତ ଓ ଅନ୍ତବର୍ଗ ଦ୍ରୁତ୍ୟ ଏବଂ ସେବା
66. ସରକାରୀ ବନ୍ଦ ବ୍ୟବସ୍ଥାର ଅର୍ଥ ସୁଲଭ ମୂଲ୍ୟ ଦୋକାନମାଳକର ନେଟ୍‌ଵାର୍କ ମାଧ୍ୟମରେ ଆବର୍ଦ୍ଦିନ ଆଧାରରେ ବହୁରୂପ୍ୟକ ଜନସାଧାରଣକୁ ଅତ୍ୟାବଶ୍ୟକ ଦ୍ରୁତ୍ୟଗୁଡ଼ିକର ବସନ କରିବା। ଏହି ବସନ ବ୍ୟବସ୍ଥା ଅନ୍ତର୍ଭବ୍ୟ ଦ୍ରୁତ୍ୟଗୁଡ଼ିକ ହେଲା।
- (i) ଗାହମ, (ii) ଚାରଳ, (iii) ଟାଲି, (iv) ଚିନି
- (i), (ii) ଓ (iii)
 - (i), (ii) ଓ (iv)
 - (ii), (iii) ଓ (iv)
 - (i), (iii) ଓ (iv)
67. 1986 ଖାରଟେ ସୁରକ୍ଷା ଅଧିନିୟମ ବିରିଦ୍ଧ ପ୍ରକାର ଶୋକ୍ଷଣ ଦିର୍ବାନରେ ଫଳପ୍ରଦୟରକ୍ଷାମାନ ଯୋଗାର ଦେବଜାତି ହେଲା ଶୋକ୍ଷଣଗୁଡ଼ିକର ରୂପ ହେଉଛି।
- (i) ଦୂର୍ଦ୍ଵୟାବ୍ଦୀ ଦ୍ରୁତ୍ୟ
 - (ii) କମ୍ ସେବା
 - (iii) ଅସାଧୁ ଦେବପାର ଅର୍ଥାତ୍
ଅଧିକାରୀଙ୍କ କରାର ଠିକ୍ ?
- (i) ଓ (ii)
 - (ii) ଓ (iii)
 - (i), (ii) ଓ (iii)
 - କେବଳ (i)

68. Which of the following statement is true for NITI Ayog?
- It will work as a Think Tank
 - It will allocate funds to the Central and State Government.
 - It will promote co-operative federalism
 - It will expedite implementation of key projects/schemes
- A. (i) and (ii)
B. (ii) and (iii)
C. (iii) and (iv)
(ii), (iii) and (iv)
69. Arrange the following four planets according to their increasing distance from the sun:
- Venus,
 - Mars,
 - Earth,
 - Mercury
- A. 1, 2, 3, 4
B. 4, 1, 3, 2
C. 2, 3, 4, 1
D. 2, 4, 3, 1
70. Which one of the following volcanoes is situated in Mexico?
- A. Etna
B. Semeru
C. Colima
D. Purace
71. Which country is known as "the Land of thousand Lakes"?
- A. Ireland
B. Finland
C. Scotland
D. Switzer Land
68. ନିମ୍ନୋକ୍ତ ଉଚ୍ଚ ମଧ୍ୟ କେତେ ନିତି ଆୟୋଗ ସକାଳେ ପ୍ରକୃତ୍ୟ ?
- ଏହା ଏକ ଟିଚିନମଣ୍ଡଲି ଭାବେ କାର୍ଯ୍ୟ କରିବ
 - ଏହା କେନ୍ଦ୍ର ଓ ରାଜ୍ୟ ସରକାରଙ୍କୁ ଅର୍ଥ ବନ୍ଦଳ କରିବ
 - ଏହା ସାମାଜିକ ସଂଗ୍ରାମ ବ୍ୟବସ୍ଥାର ସଂରକ୍ଷଣ କରିବ
 - ଏହା ପ୍ରମୁଖ ପ୍ରକକ୍ଷ / ପରିଯୋଜନା ପ୍ରୁଟିକର କାର୍ଯ୍ୟକୁସନ୍ଧରିତ କରିବ
- A. (i) & (ii)
B. (ii) & (iii)
C. (iii) & (iv)
D. (ii), (iii) & (iv)
69. ସ୍ଵର୍ଯ୍ୟଠାରୁ ଦୂରଦୂରି ବୃଦ୍ଧି ଅନୁସାରେ ନିମ୍ନୋକ୍ତ ଭାରିଗୋଟି ଗ୍ରହଙ୍କୁ ସବାଅ :
- ଶୁନ୍ଦି, 2. ମଣିଲ, 3. ପୃଥ୍ବୀ, 4. ବୃଦ୍ଧ
- A. 1, 2, 3, 4
B. 4, 1, 3, 2
C. 2, 3, 4, 1
D. 2, 4, 3, 1
70. ନିମ୍ନୋକ୍ତ ଭୂକାନମୁଖୀରୁକ୍ତିକ ମଧ୍ୟ କେତେ ମୋହିକୋରେ ଅବସ୍ଥିତ ?
- A. ଏତାମ
B. ସେମେରୁ
C. କୋଲିମା
D. ପ୍ରାରେସ୍
71. କେର୍ଣେଶ୍ଵର "ପହଞ୍ଚଦରଦେଶ" ବୋଲି କୁହାଯାଏ ?
- A. ଆୟୁରଜ୍ୟାଏ
B. ଫିନଲ୍ୟାଣ
C. ସର୍ଲ୍ୟାଣ
D. ସୁଇଜରଲ୍ୟାଣ

72. On which river Kariba dam is located?

- A. Hudson River
- B. Niger River
- C. Zambezi River
- D. Nile River

73. Between which of the two islands the Sunda Strait is situated?

- A. Java and Sumatra
- B. Java and Borneo
- C. Sumatra and Borneo
- D. Little Andaman and Car Nicobar

74. The Gulf of Mannar is located in the :

- A. Bay of Bengal
- B. Arabian Sea
- C. Gulf of Khambat
- D. Andaman Sea

75. By which of the following rivers the lands of Punjab and Haryana are irrigated?

- A. Jhelum, Beas, Sutlej
- B. Ravi, Yamuna, Sutlej
- C. Ravi, Beas, Sutlej
- D. Jhelum, Beas, Ravi

76. Which of the following pairs is correctly matched?

- A. Durand Line - India and Myanmar
- B. Radcliff Line - India and Pakistan
- C. Mc Mohan Line - India and Nepal
- D. Markat Line - India and Afghanistan

72. କାରିବା ନଦୀ କେର୍ତ୍ତିନଦୀ ଉପରେ ଅବସ୍ଥିତ ?

- A. ହଡ଼ୁନ ନଦୀ
- B. ନାଇକନ ନଦୀ
- C. କାମେଜା ନଦୀ
- D. ନୀଳ ନଦୀ

73. ସୁନ୍ଦା ପ୍ରଶାଲୀ କେର୍ତ୍ତି ଦ୍ୱାରା ମଧ୍ୟରେ ଅବସ୍ଥିତ ?

- A. ଜାଭା ଏବଂ ସୁମାତ୍ରା
- B. ଜାଭା ଏବଂ ବୋର୍ନୋ
- C. ସୁମାତ୍ରା ଏବଂ ବୋର୍ନୋ
- D. ଶ୍ରଦ୍ଧା ଆଞ୍ଚମାନ ଓ କାର୍ଲ ନିକୋବର

74. ମାନ୍ଦା ଉପଯାଗର କେର୍ତ୍ତାରେ ଅବସ୍ଥିତ ?

- A. ବ୍ରାହ୍ମପୁରୀ ଗର
- B. ଆରବୀ ଗର
- C. ଖମାର ଉପଯାଗର
- D. ଆଞ୍ଚମାନ ସାଗର

75. ପଞ୍ଚାବ ଓ ହରିୟାଶାର ଜମି ନିମ୍ନୋକ୍ତ କେର୍ତ୍ତି ନଦୀଗୁଡ଼ିକ ଦ୍ୱାରା ବିଲେଖିତ ହୋଇଥାଏ ?

- A. ଫେଲମ୍, ବେଆସ, ସତଳାଇ
- B. ରାତି, ପମ୍ବା, ସତଳାଇ
- C. ରାତି, ବେଆସ, ସତଳାଇ
- D. ଫେଲମ୍, ବେଆସ, ରାତି

76. ନିମ୍ନୋକ୍ତ କେର୍ତ୍ତା ଯୋଡ଼ିବି ଠିକ୍ କରିବାରେ ଯୋଡ଼ାଯାଇଛି ?

- A. ତୁରାଣ୍ଡ ରେଖା - ଭାରତ ଓ ମିଆମାର
- B. ଲାତ୍କୁପ ରେଖା - ଭାରତ ଓ ପାକିସ୍ତାନ
- C. ମ୍ୟାନ୍‌ମୋହନ ରେଖା - ଭାରତ ଓ ନେପାଳ
- D. ମାରକଟ୍ ରେଖା - ଭାରତ ଓ ଆଫଗାନିସ୍ତାନ

77. Which of the following two islands are volcanic islands?
- Kavaratti and New Moor
 - Kavaratti and Bitra
 - Pamban and Barren
 - Barren and Narcondam
78. Balladilla is famous for:
- Bauxite
 - Coal
 - Iron Ore
 - Copper
79. What is Obra?
- Atomic Power Plant in Rajasthan
 - Thermal Power Plant in Uttar Pradesh
 - Atomic Power Plant in Kalpakkam
 - Hydro-electric Project in Uttar Pradesh
80. Which one of the following pairs is not correct?
- Kanha National Park - Madhya Pradesh
 - Bandipur National Park - Karnataka
 - Ranthambore National Park - Gujarat
 - Sultanpur National Park - Haryana
81. Why is the year 1789 famous in the history of the world?
- Outbreak of the French Revolution
 - Outbreak of the Russian Revolution
 - Outbreak of the American war of Independence
 - Outbreak of the Industrial Revolution
77. ନିମ୍ନୋକ୍ତ କେର୍ଣ୍ଣ ଦୁଇଟି ଦ୍ୱୀପ ଜାଳାମୁଖୀୟ ହୀୟ ?
- କାରାଗରୀ ଓ ନିରମୂର
 - କାରାଗରୀ ଓ ବିତ୍ତା
 - ପମନ ଓ ବ୍ୟାରେନ୍
 - ବ୍ୟାରେନ୍ ଓ ନାରଙ୍ଗୋ ଡାମ୍
78. ବୈଲାଟିଲା କ'ଣ ପାଇଁ ପ୍ରସିଦ୍ଧ ?
- ବକ୍ସାଇଟ୍
 - କୋଇଲା
 - ଲୁହାପଥିର
 - ତମା
79. ଓହା କଣ ?
- ଗାନ୍ଧୀନର ଆଣବିକ ଶତ୍ରୁକେନ୍ତ୍ର
 - ଉରଗ୍ରପ୍ରଦେଶର ଚାପଳ ଶତ୍ରୁ କେନ୍ତ୍ର
 - କହକମ୍ର ଆଣବିକ ଶତ୍ରୁକେନ୍ତ୍ର
 - ଉରଗ୍ରପ୍ରଦେଶର ଜଳବିଦ୍ୟୁତ ଯୋଗନୀ
80. ନିମ୍ନୋକ୍ତ କେର୍ଣ୍ଣ ଯୋଡ଼ିଛି ଠିକ୍ ନୁହେଁ ?
- କାନ୍ଧା ଜାତୀୟ ଉଦ୍ୟାନ - ମଧ୍ୟପ୍ରଦେଶ
 - ବାଦୀପୁର ଜାତୀୟ ଉଦ୍ୟାନ - କର୍ଣ୍ଣାରକ
 - ରଣଥମୋର ଜାତୀୟ ଉଦ୍ୟାନ - ଗୁଜୁରାଟ
 - ସୁଲତାନପୁର ଜାତୀୟ ଉଦ୍ୟାନ - ହରିୟା
81. 1789 ମୟୋଦ୍ଧରା ଘଟିଛା ଏରେ କାହିଁକି ପ୍ରସିଦ୍ଧ ?
- ଫରାସା ବିପୁଳ ଘଟିଥିଲା
 - ରୁଷର୍ବିପୁଳ ଘଟିଥିଲା
 - ଆମେରିକା ସାଧାନତା ସଂଗ୍ରାମ ଘଟିଥିଲା
 - ଶିକ୍ଷିପୁଳ ଘଟିଥିଲା।

82. Who had published the Communist Manifesto?
- A. Czar Alexander II.
 - B. Leo Tolstoy
 - C. Maxim Gorky
 - D. Karl Marx and Friederich Engels
83. Who had led the 1917 October Revolution in Russia?
- A. Rasputin
 - B. Lenin
 - C. Stalin
 - D. Karl Marx
84. Which European country had dominated the colonisation of Vietnam?
- A. Holland
 - B. Spain
 - C. France
 - D. Portugal
85. How was the impact of the First World War on the European economy during 1930's described?
- A. The Great Economic Recovery
 - B. The Great Economic Depression
 - C. The Great Economic Stability
 - D. The Great opportunity for Economic progress
86. Who is the author of the book 'Mein Kampf'?
- A. Hitler
 - B. Mussolini
 - C. Napoleon
 - D. Lenin
82. କମ୍ଯୁନିଷ୍ଟ ମାନିଫୋର୍ମ କିଏ ପ୍ରକାଶ କରିଥିଲେ ?
- A. ଜାର ଦ୍ଵାରା ଆଲେକଜାଣାର
 - B. ଲିଓ ତଲସୀ
 - C. ମାକ୍ସିମ ଗୋର୍କୀ
 - D. କାର୍ଲ ମାର୍କସ ଓ ଫ୍ରେଡ଼ରିକ ଏଙ୍ଗେଲସ
83. ରୂପିଆର 1917 ଅକ୍ଟୋବର ଚିପୁବର ନେବୁହ କିଏ ନେଇଥିଲେ ?
- A. ରାସପୁଟିନ
 - B. ଲେନିନ
 - C. ଅଲିନ
 - D. କାର୍ଲ ମାର୍କସ
84. କେତେ ଉତ୍ତରାୟୀ ଦେଶ ରିଏତନାମରେ ଉପନିବେଶ ସ୍ଥାପନ କୌଣସି ପ୍ରକାବ ବିପ୍ରାର କରିଥିଲା ?
- A. ହିନ୍ଦୁଣ୍ଡ
 - B. ଥିବାନ୍
 - C. ଫ୍ରାନ୍ସ
 - D. ପର୍ତ୍ତିଗାଲ
85. 1930 ମସିହା ହେଲକୁ ପ୍ରଥମ ବିଶ୍ୱଯୁଦ୍ଧର ଉତ୍ତରାୟୀ ଅର୍ଥନୀତି ଉପରେ ପ୍ରକାବକୁ ନିପରି ବର୍ଣ୍ଣନା କରାଯାଇଥିଲା ?
- A. ବୃଦ୍ଧିର ଆର୍ଥିକ ଅଭ୍ୟଦୟ
 - B. ଉତ୍ତର ଆର୍ଥିକ ସକଳ
 - C. ସମ୍ପାଦିକ ଯୁଗରତା
 - D. ଆର୍ଥିକ ବିକାଶ ପାଇଁ ବଡ଼ ସୁଯୋଗ
86. "ମୈନ କାମ୍ପ" (ମୋର ସାଂଘର୍ଷ) ପୁଅଳର ରଚକୀତା କିଏ ?
- A. ହିଟଲର
 - B. ମୁସ୍ତିଳିନୀ
 - C. ଲେପୋଲିଯନ
 - D. ଲେନିନ

87. In which session of the Indian National Congress was the 'Purna Swaraj' resolution passed?
- Karachi Session
 - Lahore Session
 - Madras Session
 - Bombay Session
88. Which of the following answer options is written in correct chronological order of the given events?
- First Round Table Conference, Simon Commission, Non-Cooperation Movement, Rowlatt Act
 - Simon Commission, Rowlatt act, First Round Table Conference, Non-Cooperation Movement
 - Non-Cooperation Movement, Simon Commission, First Round Table Conference, Rowlatt act
 - Rowlatt act, Non-Cooperation Movement, Simon Commission, First Round Table Conference
89. Who has written 'Gita Govinda'?
- Upendra Bhanja
 - Jagannath Das
 - Jayadeva
 - Sarala Das
90. When did Germany surrender to the Allies in the World War II?
- September, 1943
 - May, 1945
 - August, 1945
 - December, 1946
91. When did Mahatma Gandhi return to India from South Africa?
- 1914
 - 1915
 - 1916
 - 1917
87. ଭାରତୀୟ ଜାତୀୟ କଂଗ୍ରେସର କେଉଁ ଅଧ୍ୟବେଶନରେ 'ପୂର୍ଣ୍ଣସ୍ଵାଜ' ପ୍ରତ୍ରାବ ଗୃହୀତ ହୋଇଥିଲା ?
- କରାଚି ଅଧ୍ୟବେଶନ
 - ଲାହୋର ଅଧ୍ୟବେଶନ
 - ମାଡ୍ରାସ ଅଧ୍ୟବେଶନ
 - ବିଦେଶ ଅଧ୍ୟବେଶନ
88. ନିମ୍ନଲିଖିତ ଉତ୍ତର ବିକଳ ଉତ୍ତର କେଉଁଟିରେ ଦିଆଯାଇଥିବା ପଞ୍ଚଶାଷ୍ଟିକ ସଠିକ୍ ସମୟାନ୍ତ୍ରମେ ଲେଖାଯାଇଛି ?
- ପ୍ରଥମ ଗୋଲଟେବୁଲ ବେଠିକ, ସାଇମନ କମିଶନ, ଅସହଯୋଗ ଆନ୍ଦୋଳନ, ରାଓଲାର ଆଇନ ।
 - ସାଇମନ କମିଶନ, ରାଓଲାର ଆଇନ, ପ୍ରଥମ ଗୋଲଟେବୁଲ ବେଠିକ, ଅସହଯୋଗ ଆନ୍ଦୋଳନ ।
 - ଅସହଯୋଗ ଆନ୍ଦୋଳନ, ସାଇମନ କମିଶନ, ପ୍ରଥମ ଗୋଲଟେବୁଲ ବେଠିକ, ରାଓଲାର ଆଇନ,
 - ରାଓଲାର ଆଇନ, ଅସହଯୋଗ ଆନ୍ଦୋଳନ, ସାଇମନ କମିଶନ, ପ୍ରଥମ ଗୋଲଟେବୁଲ ବେଠିକ ।
89. 'ଜାପଗାତିହ' ର ରୂପୀତା କିଏ ?
- ଉପେତ୍ର ରକ୍ତ
 - ଜଗନ୍ନାଥ ଦାସ
 - ଜୟଦେବ
 - ସାରଳା ଦାସ
90. ଦ୍ଵିତୀୟ ବିଶ୍ୱଯୁଦ୍ଧରେ କେବେ ଜମାନା ମିତ୍ରଙ୍କ ପାଖରେ ଆୟୁଷମପ୍ରଣାଳୀତ୍ଥିଲା ?
- ସେପ୍ଟେମ୍ବର, 1943
 - ମେ, 1945
 - ଅଗଷ୍ଟ, 1945
 - ଡିସେମ୍ବର, 1946
91. ମହାମୂର୍ତ୍ତିତ୍ବ କେବେ ଦକ୍ଷିଣ ଆଫ୍ରିକାରୁ ଭାରତକୁ ଫେରିଥିଲେ ?
- 1914
 - 1915
 - 1916
 - 1917

92. Which one of the following statements is not true?
- Raja Ram Mohan Roy was a king
 - Raja Ram Mohan Roy was the founder of the Brahmo Samaj
 - Raja Ram Mohan Roy was a socio-religious reformer
 - Raja Ram Mohan Roy supported the abolition of the practice of sati.
93. Who accords recognition to a newly formed Political Party?
- The President
 - The Parliament
 - Election Commission of India
 - The Prime Minister
94. Which of the following added the 'Fundamental Duties' to our constitution?
- 44th Amendment
 - 73rd Amendment
 - 86th Amendment
 - 42nd Amendment
95. By whom the Vice President of India is elected?
- Elected members of Parliament
 - All members of Parliament
 - Members of Rajya Sabha
 - Elected members of State Legislative Assemblies
96. Which of the following mentions "Directive principles of State policy"?
- Articles 3 to 11
 - Articles 12 to 35
 - Articles 36 to 51
 - Articles 19 to 27
92. নিম্ন প্রতির বিবরণামালক উচ্চে কেবল গোটিক স্বত্ত্ব নহে।
- রাজা রামমোহন রায় জনশৈক্ষণিক থালে
 - রাজা রামমোহন রায় ব্রাহ্মসমাজের প্রতিষ্ঠাতা থালে
 - রাজা রামমোহন রায় জনশৈক্ষণিক ধর্ম ও সমাজ পংশুরক থালে
 - রাজা রামমোহন রায় পতা প্রথা উপরে সমর্থন করিথালে
93. নথা হোৱা রক্ত হোৱার প্রতিষ্ঠান কি এ প্রকৃতি প্রদান কৰিছে ?
- গান্ধী
 - সংসদ
 - ভাৰতৰ নিৰ্বাচন আয়োজন
 - প্ৰধানমন্ত্ৰী
94. নিম্নোক্ত কেৱল 'মৌলিক জগৎৰ্য গুৰুত্ব' পন্থিধানৰ অঙ্গৰূপ কৰিথুলাই ?
- 44 তম সংশোধন
 - 73 তম সংশোধন
 - 86 তম সংশোধন
 - 42 তম সংশোধন
95. কেৱলমালক দ্বাৰা ভাৰতৰ উপৰাজ্যপতি নিৰ্বাচিত হুথাটি ?
- সংসদৰ নিৰ্বাচিত পৰ্য
 - সংসদৰ সমষ্ট পৰ্য
 - ভাৰতৰ পৰ্য
 - ভাৰতৰ পৰ্য
96. নিম্নোক্ত কেৱল ধাৰাৰুচিৰ রাষ্ট্ৰীয়তি নিয়মক গুৰুত্ব দৰ্শাইছিত ?
- ধাৰা 3 বৰ্ত 11
 - ধাৰা 12 বৰ্ত 35
 - ধাৰা 36 বৰ্ত 51
 - ধাৰা 19 বৰ্ত 27

97. Which of the following is a challenge to National Integration?
- Federalism
 - Regionalism
 - Democracy
 - Social Justice
98. Which of the following is a National Political Party?
- Bahaujan Samaj Party
 - Rastriya Janata Dal
 - Trinamool Congres
 - Biju Janata Dal
99. When was the “Financial Emergency” declared in India?
- 1975
 - 1985
 - 1995
 - Never
100. From which of the following countries the concept of “Independence of Judiciary” has been borrowed by India?
- England
 - Canada
 - Switzerland
 - America
97. ନିମ୍ନୋକ୍ତ ମଧ୍ୟରୁ କେଉଁଟି ଜାତୀୟ ସଂହଚି ପ୍ରତି ଏକ ଆହୁନ ?
- ସଂଗ୍ରାମ ବାଦ
 - ଆଞ୍ଚଳିକ ବାଦ
 - ଗଣଚନ୍ଦ୍ର
 - ସାମାଜିକ ନ୍ୟାୟ
98. ନିମ୍ନୋକ୍ତ କେଉଁଟି ଏକ ଜାତୀୟ ରାଜାନାତିକ ଦଳ ?
- ବହୁଜନ ସମାଜପାର୍ଟି
 - ରାଷ୍ଟ୍ରୀୟ ଜନତାଦଳ
 - ତୃତୀୟ କଂଗ୍ରେସ
 - ବିଜୁ ଜନତା ଦଳ
99. ଭାରତରେ କେବେ ‘ଆଥ୍ବ ଜରୁରୀ ପରିସ୍ଥିତି’ ଘୋଷଣା କରାଯାଇଥିଲା ?
- 1975
 - 1985
 - 1995
 - କେବେ ହୋଇନାହିଁ
100. କେଉଁ ଦେଶରୁ ‘ନ୍ୟାୟପାଲିକାର ସାଧାନତା’ ଧାରଣା ଭାରତ ଆଣିଥିଲି ।
- ଉଳଙ୍ଗ
 - କାନାଡା
 - ସୁରକ୍ଷାଟାଙ୍କ
 - ଆମେରିକା

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