

## सूचना

(1) सदर प्रश्नपुस्तिकेत $\mathbf{1 0 0}$ अनिवार्य प्रश्न आहेत. उमेदवारांनी प्रश्नांची उत्तरे लिहिण्यास सुरुवात करण्यापूर्वी या प्रश्नपुस्तिकेत सर्व प्रश्न आहेत किंवा नाहीत याची खात्री करून घ्यावी. असा तसेच अन्य काही दोष आढळल्यास ही प्रश्नपुस्तिका समवेक्षकांकडून लगेच बदलून घ्यावी.
(2) आपला परीक्षा-क्रमांक ह्या चौकोनांत न विसरता बॉलपेनने लिहावा.

(3) वर छापलेला प्रश्नपुस्तिका क्रमांक तुमच्या उत्तरपत्रिकेवर विशिष्ट जागी उत्तरपत्रिकेवरील सूचनेप्रमाणे न विसरता नमूद करावा.
(4) (अ) या प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाला 4 पर्यायी उत्तरे सुचविली असून त्यांना $1,2,3$ आणि 4 असे क्रमांक दिलेले आहेत. त्या चार उत्तरांजैकी सर्वात योग्य उत्तराचा क्रमांक उत्तरपत्रिकेवरील सूचनेप्रमाणे तुमच्या उत्तरपत्रिकेवर नमूद करावा. अशा प्रकारे उत्तरपत्रिकेवर उत्तरक्रमांक नमूद करताना तो संबंधित प्रश्नक्रमांकासमोर छायांकित करून दर्शविला जाईल याची काळजी घ्यावी. ह्गकरिता फक्त काक्क्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.
(ब) आयोगाने ज्या विषयासाठी मराठी बरोबर इंग्रजी माध्यम विहित केलेले आहे. त्या विषयाचा प्रत्येक प्रश्न मराठी बरोबर इंग्रजी भाषेत देखील छापण्यात आला आहे. त्यामधील इंग्रजीतील किंवा मराठीतील प्रश्नामध्ये मुद्रणदोषांमुळे अथवा अन्य कारणांमुळे विसंगती निर्माण झाल्याची शंका आल्यास, उमेदवाराने संबंधित प्रश्न पर्यायी भाषेतील प्रश्नाशी ताडून पहावा.
(5) सर्व प्रश्नांना समान गुण आहेत. यास्तव सर्व प्रश्नांची उत्तरे द्यावीत. घाईमुले चुका होणार नाहीत याची दक्षता घेऊनच शक्य तितक्या वेगाने प्रश्न सोडवावेत. क्रमाने प्रश्न सोडविणे श्रेयस्कर आहे पण एखादा प्रश्न कठीण वाटल्यास त्यावर वेळ न घालविता पुठील प्रश्नाकडे वळावे. अशा प्रकारे शेवटच्या प्रश्नापर्यंत पोहोचल्यानंतर वेळ शिल्लक राहिल्यास कठीण म्हणून वगळलेल्या प्रश्नांकडे परतणे सोईस्कर ठरेल.
(6) उत्तरपत्रिकेत एकदा नमूद केलेले उत्तर खोडता येणार नाही. नमूद केलेले उत्तर खोडून नव्याने उत्तर दिल्यास ते तपासले जाणार नाही.
(7) प्रस्तुत परीक्षेच्या उत्तरपत्रिकांचे मूल्यांकन करताना उमेदवाराच्या उत्तरपत्रिकेतील योग्य उत्तरांनाच गुण दिले जातील. तसेच '‘उमेदवाराने वस्तुनिष्ठ बहुपर्यायी स्वरूपाच्या प्रश्नांची दिलेल्या चार उत्तरापैकी सर्वात योग्य उत्तरेच उत्तरपत्रिकेत नमूद करावीत. अन्यथा त्यांच्या उत्तरपत्रिकेत सोडविलेल्या प्रत्येक चार चुकीच्या उत्तरांसाठी एका प्रश्नाचे गुण वजा करण्यात येतील'

## ताकीद

ह्या प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपेपर्यंत ही प्रश्नपुस्तिका आयोगाची मालमत्ता असून ती परीक्षाकक्षात उमेदवाराला परीक्षेसाठी वापरण्यास देण्यात येत आहे. ही वेळ संपेपर्यंत सदर प्रश्नपुस्तिकेची प्रत/प्रती, किंका सदर प्रश्नुुस्तिकेतील काही आशय कोणत्याही स्वरूपात प्रत्यक्ष वा अप्रत्यक्षपणे कोणत्याही व्यक्तीस पुरविणे, तसेच प्रसिद्ध करणे हा गुन्हा असून अशी कृती करणाज्या व्यक्तीवर शासनाने जारी केलेल्या "परीक्षांमध्ये होणान्या गैग्रकारांना प्रतिबंध करण्याबाबतचा अधिनियम-82" यातील तरतुदीनुसार तसेच प्रचलित कायद्याच्या तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.
तसेच ह्या प्रश्नपत्रिकेसाठी विहित केलेली वेळ संपण्याआधी ही प्रश्नपुस्तिका अनधिकृतयणे बाळगणे हा सुद्धा गुन्हा असून तसे करणारी व्यक्ती आयोगाच्या कर्मचारीवृंदापैकी, तसेच परीक्षेच्या पर्यवेक्षकीयवृंदापेकी असली तरीही अशा म्यक्तीविरूद्ध उक्त अधिनियमानुसार कारवाई करण्यात येईल व दोषी व्यक्ती शिक्षेस पात्र होईल.

1. नाशिकचे कलेक्टर जॅक्सन यांच्या खुनात खालीलपैकी कोणत्या क्रांतिकारकांना फाशी देण्यात आली ?

अ. अंतंत कान्होर
ब. विनायक देशपांडे
क. कृष्णाजी कर्वे
ड. विनायक आपटे
पर्याय :
(1) फक्त अ
(2) फक्त अ आणि ब
(3) फक्त अ, ब आणि क
(4) फक्त अ, ब, क आणि ड

Who from amongst the following revolutionaries were hanged for the murder of Jackson, the Collector of Nasik?
a. Anant Kanhere
b. Vinayak Deshpande
c. Krishnaji Karve
d. Vinayak Apte

Options :
(1) Only a
(2) Only a and b
(3) Only a, b and c
(4) $a, b, c$ and d
2. सतीच्या चालीचे वर्णन "शास्त्राच्या समतीने केलेला खून", असे कोणी केले आहे ?
(1) विल्यम बेंटिंक
(2) महात्मा ज्योतिबा फुले
(3) राजा राममोहन रॉय
(4) पंडित ईश्वरचंद्र विद्यासागर

Who described the custom of 'Sati' as "murder approved by shastras"?
(1) William Bentinck
(2) Mahatma Jyotiba Phule
(3) Raja Rammohan Roy
(4) Pandit Ishwarchandra Vidyasagar

Q04
3. जोड्या लावा :

राज्य
अ. कर्नाटक
ब. छत्तीसगड
क. उत्तर प्रदेश
ड. मध्य प्रदेश

व्याघ्र प्रकल्प
I. कान्हा
II. दूदवा
III. इंद्रावती
IV. बंदीपूर

अ ब क ड
(1) IV III II I
(2) III IV II I
(3) I II III IV
(4) II I IV III

Match the following :

State
A. Karnataka
B. Chhattisgarh
C. Uttar Pradesh
D. Madhya Pradesh

A $\quad$ B $\quad$ C $\quad$ D
(1) IV III II I
(2) III IV II I
(3) I II III IV
(4) II I IV III

Tiger Reserve
I. Kanha
II. Dudwa
III. Indravati
IV. Bandipur

## A

4. जोड्या लावा :

जनगणना वर्ष

अ. 1901
ब. 1951
क. 1981
ड. 2001

अ ब क ड
(1) II III I IV
(2) IV I III II
(3) II I III IV
(4) I II III IV

Match the following :
Census year
A. 1901
B. 1951
C. 1981
D. 2001

A $\quad$ B $\quad$ C $\quad$ D
(1) II III I IV
(2) IV I III II
(3) II I III IV
(4) I II III IV

भारतातील स्त्री-पुरूष प्रमाण
(स्त्रिया प्रति 1000 पुरूष)
I. 934
II. 972
III. 946
IV. 933

## Sex ratio in India

(females per 1000 males)
I. 934
II. 972
III. 946
IV. 933
5. खालील जोड्या जुळवा :

> अ (घटनादुरूस्ती)

अ. 42 वी घटनादुरूस्ती
ब. 44 वी घटनादुरूस्ती
क. 73 वी घटनादुरूस्ती
ड. 92 वी घटनादुरूस्ती

|  | अ | ब | क | ड |
| :--- | :--- | :--- | :--- | :--- |
| (1) | I | II | III | IV |
| (2) | II | III | IV | I |
| (3) | III | IV | II | I |
| (4) | IV | I | III | II |

Match the following pairs :

$$
\begin{gathered}
\text { ब } \\
\text { (तरतुदी) }
\end{gathered}
$$

I. बोडो, मैथिली भाषेचा सामावेश
II. पंचायत राज
III. मूलभूत कर्तव्ये
IV. मालमत्तेचा हक्क निष्कासीत

## A <br> (Amendment)

A. $42^{\text {nd }}$ Amendment
B. $44^{\text {th }}$ Amendment
C. $73^{\text {rd }}$ Amendment
D. $92^{\text {nd }}$ Amendment

| A |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (Amendment) |  |  |  |  |
| A. | 42 ${ }^{\text {nd }}$ Amendment |  |  |  |
| B. | 44 ${ }^{\text {th }}$ Amendment |  |  |  |
| C. | $73^{\text {rd }}$ Amendment |  |  |  |
| D. | 92 ${ }^{\text {nd }}$ Amendment |  |  |  |
|  | A | B | C | D |
| (1) | I | II | III | IV |
| (2) | II | III | IV | I |
| (3) |  | IV | II | I |
| (4) | IV | I | III | II |

I. Inclusion of Bodo, Maithili language
II. Panchayat Raj
III. Fundamental Duties
IV. Right to Property abolished
6. दारिद्रय रेषेखालील महिलांची आरोग्य तपासणी करण्यासाठी खालीलपैकी कोणती योजना सुरू करण्यात आली ?
(1) आशा योजना
(2) राष्ट्रीय ग्रामीण आरोग्य मिशन
(3) जननी सुरक्षा योजना
(4) स्वशक्ती योजना

Which of the following schemes was started for the medical check-up of the women below poverty line?
(1) Asha Scheme
(2) National Rural Health Mission
(3) Janani Security Scheme
(4) Self-power Scheme
7. खालील विधाने पहा :

अ. भारत हे लोकशाही गणराज्य आहे कारण राज्याचा सर्वोच्च प्रमुख लोकांकड्ून निवडला जातो.
ब. भारत हे लोकशाही गणराज्य आहे कारण येथे संसद सर्वश्रेष्ठ आहे.
वरीलपैकी कोणते/ती विधान/ने बरोबर आहे/त ?
(1) फक्त अ
(2) फक्त ब
(3) अ आणि ब
(4) यापैकी नाही

Consider the following statements :
a. India is a democratic republic, because the head of the state is elected by the people.
b. India is a democratic republic, because there is a parliamentary supremacy.

Which of the statements given above is/are correct ?
(1) Only a
(2) Only b
(3) a and b
(4) None of these
8. खालील जोड्या जुळवा :


अ. कायद्याचे राज्य
ब. मार्गदर्शक तत्त्वे
I. रशियाची राज्यघटना

क. समवर्ती सूची
II. इंग्लंडन्ची राज्यघटना
5. मूलभूत कर्तव्ये
III. आयरिश राज्यघटना
IV. ऑस्ट्रेलियाची राज्यघटना
अ ब क ड
(1) I II III IV
(2) II III IV I
(3) III IV I II
(4) IV I II III

Match the following pairs :

A
(Constitutional features)
A. Rule of law
B. Directive Principles
C. Concurrent List
D. Fundamental Duties
$\begin{array}{llll}\text { A } & \text { B } & \text { D }\end{array}$
(1) I II III IV
(2) II III IV I
(3) III IV I II
(4) IV I II III

## B

(Sources)
I. Russian Constitution
II. British Constitution
III. Irish Constitution
IV. Australian Constitution

## A

9. खालील जोड्या जुळवा :

अ
अ. सिक्कीम
ब. मिझोरम
क. अरूणाचल प्रदेश
ड. गोवा

## 9

ब
I. 22 वे राज्य
II. 23 वे राज्य
III. 24 वे राज्य
IV. 25 वे राज्य

अ ब क ड
(1) I II III IV
(2) II I IV III
(3) III IV II I
(4) IV III I II

Match the following pairs :

A
A. Sikkim
B. Mizoram
C. Arunachal Pradesh
D. Goa
$\begin{array}{llll}\text { A } & \text { B } & \text { D }\end{array}$
(1) I II III IV
(2) II I IV III
(3) III IV II I
(4) IV III I II
(4)
I. $22^{\text {nd }}$ State
II. $23^{\text {rd }}$ State
III. $24^{\text {th }}$ State
IV. $25^{\text {th }}$ State
10. भारतातील भांडवली खात्यावरील रुपयाचा पूर्ण परिवर्तनीयतेचा अभ्यास करण्यासाठी खालीलपैकी कोणती नेमण्यात आली ?
(1) तारापोर समिती
(2) केळकर समिती
(3) नरसिंहम् समिती
(4) साळवे समिती

Which of the following committees has been set up to study full convertibility of Rupee on Capital Account in India?
(1) Tarapore Committee
(2) Kelkar Committee
(3) Narasimham Committee
(4) Salve Committee
11. अंदानपत्रकातील प्राथमिक तूट याचा अर्थ खालीलपैकी कोणता आहे ?

अ. एकूण उत्पन्न वजा एकूण खर्च
ब. महसूली उत्पन्न वजा महसूली खर्च
क. वित्तीय तूट वजा कर्जावरील व्याज
ड. वरीलपैकी सर्व
वरीलपैकी कोणते/ती विधान/ने बरोबर आहे/त ?
(1) फक्त अ
(2) फक्त अ आणि ब
(3) फक्त ड
(4) फक्त क

What is the meaning of the term Primary Deficit of the budget?
a. Total income less total expenditure
b. Revenue income less revenue expenditure
c. Fiscal deficit minus interest on debts
d. All of the above

Which of the statements given above is/are correct?
(1) Only a
(2) Only a and b
(3) Only d
(4) Only c
12. मधुमेह, कुपोषण (उपासमार) व दीधंकालीन दारूच्या व्यसनाने मज्जातंतुवर परिणाम होतो. तो खालीलपैकी कोणत्या विटामिन मुले नियंत्रणात येऊ शकतो ?
(1) न्हिटॅमिन $\mathrm{B}_{6}$
(2) ठ्हिटेमिन $\mathrm{B}_{9}$ (फौलिक आम्ल)
(3) न्हिट्येमेन $\mathrm{B}_{12}$
(4) न्हिटॅमिन C

Diabetes, malnutrition and chronic alcoholism can cause nervous disorders. It can be controlled by which of the following vitamins?
(1) Vitamin $\mathrm{B}_{6}$
(2) Vitamin $\mathrm{B}_{9}$ (Folic Acid)
(3) Vitamin $\mathrm{B}_{12}$
(4) Vitamin C
13. बदल अ :- अवायुजिवी जिवाणू प्राण्याच्या शेणाचे जैववायूत रूपांतर करतात.

बदल ब :- आपण जैववायू इंधन म्हण्न जाळतो.
खालीलपैकी कोणते वाक्य बरोबर आहे ?
(1) बदल अ, हा रासायनिक बदल आहे.
(2) बदल अ, हा रासायनिक व बदल ब हा भौतिक बदल आहे.
(3) दोन्ही बदल रासायनिक बदल आहेत.
(4) दोन्ही बदल भौतिक बदल आहेत.

Change A:- Anaerobic bacteria digest animal waste and produce biogas.
Change B :- The biogas is burnt as fuel.
Which of the following statements is true?
(1) Change $A$ is chemical change.
(2) Change $A$ is chemical change and Change $B$ is physical change.
(3) Both, A and B are chemical changes.
(4) Both, A and B are physical changes.
14. साहित्य अकादमी पुरस्कारांच्या संदर्भात सूची "अ" व सूची "ब" मधील जोड्या जुळवा :
अ (व्यक्ती)

अ. श्याम मनोहर
ब. वसंत डहाके
क. अशोक केळकर
ड. माणिक गोडघाटे (ग्रेस)

|  | अ | ब | क | ड |
| :--- | :--- | :--- | :--- | :--- |
| (1) | I | II | III | IV |
| (2) | IV | II | III | I |
| (3) | III | I | II | IV |
| (4) | II | III | IV | I |

Match the List "A" with List " $B$ " with reference to Sahitya Academy Awards :

## A (Person)

A. Shyam Manohar
B. Vasant Dahake
C. Ashok Kelkar
D. Manik Godghate (Grace)

B (Award Year)
I. 2011
II. 2009
III. 2010
IV. 2008

|  | A | B | C | D |
| :--- | :--- | :--- | :--- | :--- |
| (1) | I | II | III | IV |
| (2) | IV | II | III | I |
| (3) | III | I | II | IV |
| (4) | II | III | IV | I |

15. भारतामध्ये 'पाणीवाले बाबा' म्हण्न कोणाला ओळखले जाते ?
(1) डॉ. करण सिंह
(2) डॉ. राजेंद्र सिंह
(3) मिल्खा सिंह
(4) तोमर सिंह

Who is known as 'Paniwale Baba' in India?
(1) Dr. Karan Singh
(2) Dr. Rajendra Singh
(3) Milkha Singh
(4) Tomar Singh
16. सोनाली व मोनाली या दोघी बहिणी आहेत. सोनाली ही मोनाली पेक्षा 4 वर्षंनी मोठी आहे. दोन्हीच्या जन्म तारखा व महिने एकसरखेे आहेत. मोनालीचा जन्म सोमवार 1 जुलै 1996 रोजीचा असल्यास सोनालीचा जन्मवार कोणता ?
(1) शुक्रवार
(2) मंगळवार
(3) बुधवार
(4) गुरूवार

Sonali and Monali are two sisters. Sonali is senior to Monali by four years. Both have the same date and month of birth. Monali was born on Monday, the first of July 1996. On which week-day was Sonali born?
(1) Friday
(2) Tuesday
(3) Wednesday
(4) Thursday
17. घटक चाचणीमध्ये सोनाक्षीला गणितामध्ये मिळालेले गुण इतिहासापेक्षा जास्त आहे पण भूयोलापेक्षा नाहीत. विज्ञानामध्ये मिळालेले गुण इतिहासापेक्षा जास्त पण गणितापेक्षा कमी आहेत आणि इंग्रजीचे गुण भूगोलापेक्षा कमी आहेत. तर सर्वात कमी गुण कोणत्या व्विषयाला आहेत ?
(1) इतिहास
(2) इंग्रजी
(3) विज्ञान
(4) माहिती अपूर्ण

In a unit test, Sonakshi's marks in Mathematics are more than her marks in History but not more than her marks in Geography. Her marks in Science are more than her marks in History but less than in Mathematics and her marks in English are less than in Geography. In which subject did she score the lowest ?
(1) History
(2) English
(3) Science
(4) Data Inadequate
18. प्रश्नचिन्हांच्या जागी येणारा योग्य पर्याय निवडा.



1

(3) 250
(4) 162
(1) 164
(2) 150

Choose the correct alternative in place of question mark.


5


1

(3) 250
(4) 162
(1) 164
(2) 150
19. प्रश्नचिन्हाच्या जागी कोणती संख्या येईल ?

926: 24
799 : 72
956: ?
(1) 51
(2) 42
(3) 24
(4) 52

What number should replace the question mark?
926: 24
799 : 72
956:?
(1) 51
(2) 42
(3) 24
(4) 52
20. पहिल्या दोन पदांमध्ये जो संबंध आहे, तोच संबंध तिसन्या आणि चौथ्या पदांमध्ये आहे. प्रश्नार्थक चिन्हाच्या ठिकाणी योग्य पर्याय निवडा.

$$
4: 80:: 5: ?
$$

(1) 120
(2) 160
(3) 150
(4) 140

The relation between the $3^{\text {rd }}$ and $4^{\text {th }}$ terms is the same as in between the first two terms. Select proper alternative in place of question mark.

$$
4: 80:: 5: ?
$$

(1) 120
(2) 160
(3) 150
(4) 140
21. सोबतच्या आकृतीमधील लपलेला भाग कोणता ? योग्य पर्याय निवडा.

| 11 | 10 | 4 | 23 | 17 |
| :---: | :---: | :---: | :---: | :---: |
| 18 | 12 | 6 | 5 | 24 |
| 25 | 19 | 13 | 7 | 1 |
| 2 | 21 |  |  | 8 |
| 9 | 3 |  |  | 15 |


| 16 | 14 |
| :---: | :---: |
| 22 | 20 |

(1)

| 20 | 14 |
| :---: | :---: |
| 16 | 22 |

(2)

| 20 | 22 |
| :---: | :---: |
| 14 | 16 |

(3)

| 20 | 14 |
| :---: | :---: |
| 22 | 16 |

(4)

Which is the missing section in the given figure ? Select proper alternative.

| 11 | 10 | 4 | 23 | 17 |
| :---: | :---: | :---: | :---: | :---: |
| 18 | 12 | 6 | 5 | 24 |
| 25 | 19 | 13 | 7 | 1 |
| 2 | 21 |  |  | 8 |
| 9 | 3 |  |  | 15 |


| 16 | 14 |
| :---: | :---: |
| 22 | 20 |

(1)

| 20 | 14 |
| :---: | :---: |
| 16 | 22 |

(2)

| 20 | 22 |
| :---: | :---: |
| 14 | 16 |

(3)

| 20 | 14 |
| :---: | :---: |
| 22 | 16 |

(4)

22．दिलेल्या संख्यापालेत प्रश्नचिन्हाच्या ठिकाणी येणारे पद दिलेल्या पर्यायांमधून निवडा．

$$
1,3,10,2,5,29,3,7, ?
$$

（1） 74
（2） 48
（3） 61
（4） 63

Find the next term in the following series from the given alternatives．

$$
1,3,10,2,5,29,3,7, ?
$$

（1） 74
（2） 48
（3） 61
（4） 63

23．पहिल्या दोन पदांमध्ये जो संबंध आहे，तोच संबंध तिसन्या आणि चौथ्या पदांमध्ये सुदूधा आहे．तर प्रश्नचिन्हांच्या ठिकाणी येणारे पद योग्य पर्याय निवड्न लिहा．

$$
25: 37:: 49: ?
$$

（1） 41
（2） 56
（3） 65
（4） 60

The relation between the $3^{\text {rd }}$ and $4^{\text {th }}$ terms is the same as in the first two terms． Choose the correct alternative out of the given alternatives，in place of the question mark． 25：37：：49：？
（1） 41
（2） 56
（3） 65
（4） 60

24．एका सांकेतिक भाषेत，


＇x＇ロロO厅 \＃（囚＇चा अर्थ आहे＇formality＇
तर त्याच सांकेतिक भाषेत कोणत्या पर्यायाचा अर्थ ‘originality＇असेल ？





In a code language



Which of the following options means＇originality＇in that code language ？


（3）ロax
（4）ロロックロ
25. पुठील आकृति मालिकेचे निरीक्षण करा व प्रश्नार्थक चिन्हाच्या ठिकाणी दिलेल्या पर्यायांमधून योग्य आवृत निवडा.

A

B

C


E

(1)

(2)

(3)

(4)

Observe the following sequence of figures and choose the correct figure from the given alternatives in place of question mark.

A

B

C
6

E

(1)

(2)

(3)

(4)
26. What is a study based on complete enumeration known as ?
(1) Sample survey
(2) Pilot survey
(3) Census survey
(4) None of the above
27. What is data collected from the R.B.I. Bulletin considered as ?
(1) Primary data
(2) Secondary data
(3) Primary and Secondary data
(4) Neither Primary nor Secondary data
28. If the estimated value of an item is 50 and its actual value is 60 , then the relative error is
(1) -10
(2) 0.16
(3) 1.2
(4) 0.2
29. For the mid-values of class intervals given below
$25,34,43,52,61,70$
the first class of the distribution is
(1) $24 \cdot 5-34 \cdot 5$
(2) $25-34$
(3) $20-30$
(4) $20 \cdot 5-29 \cdot 5$
30. The heights of rectangles in a histogram having class intervals of equal size are proportional to
(1) the total frequency
(2) the class frequency
(3) width of class interval
(4) None of the above
31. The series

| Year | $:$ | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Production (kg) | $:$ | 160 | 170 | 185 | 196 | 212 | 235 |

is categorized as
(1) Individual series
(2) Continuous series
(3) Discrete series
(4) Time series
32. Ogives for the more than type and less than type distribution intersect at
(1) mean
(2) median
(3) mode
(4) origin
33. The arithmetic mean of two numbers is 6.5 and their geometric mean is 6 . The two numbers are
(1) 9,6
(2) 9,5
(3) 7,6
(4) 4,9
34. In a class of 100 students, the arithmetic mean of amount of pocket money is ₹ 35 per student per day. If the arithmetic mean is ₹ 25 for girls and ₹ 50 for boys, then number of girls in the class is
(1) 20
(2) 30
(3) 40
(4) 60
35. The middle value of an ordered series is called
(1) Second quartile
(2) Fifth decile
(3) $50^{\text {th }}$ percentile
(4) All of the above
36. Assuming that the variance of three numbers $a, b$ and $c$ is 9 then the variance of numbers $5 \mathrm{a}, 5 \mathrm{~b}$ and 5 c is
(1) 45
(2) $5 / 9$
(3) $9 / 5$
(4) 225
37. Three horses A, B and C are in a race. A is twice as likely to win as B and B is twice as likely to win as C. Probability that either B or C wins is
(1) $\frac{1}{7}$
(2) $\frac{2}{7}$
(3) $\frac{3}{7}$
(4) $\frac{4}{7}$

कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK
38. Box A contains 5 red marbles and 3 blue marbles and box B contains 3 red and 2 blue marbles. A marble is drawn at random from each box. Probability that one is red and one is blue is
(1) $\frac{9}{40}$
(2) $\frac{19}{40}$
(3) $\frac{1}{4}$
(4) $\frac{1}{2}$
39. If $A$ and $B$ are two independent events, then $P(\bar{A} \cap \bar{B})$ is equal to
(1) $P(\bar{A}) P(\bar{B})$
(2) $1-P(A \cup B)$
(3) $[1-P(A)][1-P(B)]$
(4) All of the above
40. Given that $\mathrm{P}(\mathrm{A})=\frac{1}{3} ; \mathrm{P}(\mathrm{B})=\frac{1}{4}$ and $\mathrm{P}(\mathrm{A} / \mathrm{B})=\frac{1}{6}$, then the probability $\mathrm{P}(\mathrm{B} / \mathrm{A})$ is equal to
(1) $\frac{1}{4}$
(2) $\frac{3}{4}$
(3) $\frac{1}{8}$
(4) None of the above
41. The probability that a leap year will have 53 Sundays is
(1) $\frac{1}{7}$
(2) $\frac{2}{7}$
(3) $\frac{2}{53}$
(4) $\frac{52}{53}$
42. An industrial unit has three machines 1,2 and 3 which produce the same item. Machines 1 and 2 each produces $30 \%$ of total output and machine 3 remaining $40 \%$. Machines 1, 2 and 3 produce $2 \%, 3 \%$ and $3 \%$ defectives respectively. If one item is selected from the total output, given that it is defective, the probability that it is produced by machine 1 is
(1) $\frac{1}{9}$
(2) $\frac{2}{9}$
(3) $\frac{3}{9}$
(4) $\frac{4}{9}$
43. Suppose mean and variance of a binomial distribution are 6 and 2 respectively. the value of probability of success is
(1) 0
(2) 1
(3) $\frac{1}{3}$
(4) $\frac{2}{3}$
44. If an estimator $\operatorname{Tn}$ of population parameter $\theta$ converges in probability to $\theta$ as ' $n$ ' tends to infinity then Tn is said to be
(1) Sufficient
(2) Efficient
(3) Consistent
(4) Unbiased
45. If the expected value of an estimator is not equal to its parametric function $\tau(\theta)$ then it is said to be
(1) An unbiased estimator
(2) A consistent estimator
(3) Biased estimator
(4) None of the above
46. If $X_{1}, X_{2}, \ldots, X_{n}$ be a random sample from an infinite population, where $S^{2}=\frac{\sum_{i=1}^{n}\left(X_{i}-\bar{X}\right)^{2}}{n}$, the unbiased estimator for the population variance is
(1) $S^{2} /(n-1)$
(2) $\mathrm{S}^{2} / \mathrm{n}$
(3) $(\mathrm{n}-1) \mathrm{S}^{2} / \mathrm{n}$
(4) $n S^{2} /(n-1)$
47. Let $x_{1}, x_{2}, x_{3}, \ldots, x_{n}$ be a random sample from a Bernoulli population $p^{x}(1-p)^{1-x}$. $A$ sufficient statistic for ' $p$ ' is
(1) $\sum_{i=1}^{n} x_{i}$
(2) $\prod_{i=1}^{n} x_{i}$
(3) maximum $\left(\mathrm{x}_{1}, \mathrm{x}_{2}, \ldots, \mathrm{x}_{\mathrm{n}}\right)$
(4) minimum ( $\mathrm{x}_{1}, \mathrm{x}_{2}, \ldots, \mathrm{x}_{\mathrm{r}}$ )
48. If the variance of an estimator attains the Cramer-Rao lower bound, then $t$ estimator is
(1) Sufficient
(2) Most efficient
(3) Consistent
(4) Admissible
49. A box contains 10 switches out of which $\theta$ are non-defective. To test $\mathrm{H}_{0}: \theta=5 \mathrm{v} / \mathrm{s} \mathrm{H}_{1}: \theta=4$, a random sample of 2 switches is drawn at random with replacement. $\mathrm{H}_{0}$ is rejected, if both are defective. The size of the test is
(1) $1 / 5$
(2) $4 / 5$
(3) $1 / 4$
(4) $3 / 4$
50. Maximum probability of type I error which an experimenter would be willing to risk is called
(1) Significance level
(2) Power of the test
(3) Confidence coefficient
(4) None of the above
51. Neyman - Pearson lemma provides
(1) An unbiased test
(2) A most powerful test
(3) An admissible test
(4) A minimax test
52. Test of hypothesis $\mathrm{H}_{0}: \mu=70 \mathrm{v} / \mathrm{s} \mathrm{H}_{1}: \mu>70$ leads to
(1) One-sided lower tailed test
(2) One-sided upper tailed test
(3) Two-tailed test
(4) All of the above
53. In a $6 \times 6$ contingency table, the maximum value of coefficient of contingency is
(1) $\sqrt{3}$
(2) $\sqrt{\frac{2}{3}}$
(3) $\sqrt{\frac{5}{6}}$
(4) $\sqrt{\frac{7}{8}}$
54. In a regression line of $Y$ on $X$, the variable $X$ is known as
(1) Independent variable
(2) Regressor
(3) Explanatory variable
(4) All of the above
55. For a bivariate data the regression line of Y on X is $\mathrm{Y}=4 \mathrm{X}+5$ and the regression line of X on Y is $16 \mathrm{X}=\mathrm{Y}+128$. The correlation coefficient between X and Y is
(1) $0 \cdot 2$
(2) 0.5
(3) 0.25
(4) 0.4
56. Multiple correlation coefficient $\mathrm{R}_{\mathrm{y} .12 \ldots, \mathrm{k}}$ lies in the interval.
(1) $(0,1)$
(2) $(-1,1)$
(3) $(-\infty, \infty)$
(4) $(0, \infty)$
57. If $\rho$ is the simple correlation coefficient, the quantity $\rho^{2}$ is known as
(1) Coefficient of determination
(2) Coefficient of non-determination
(3) Coefficient of alienation
(4) None of the above
58. The multiple correlation coefficient $\mathrm{R}_{1.23}$ as compared to any simple correlation coefficient between the variables $\mathrm{X}_{1}, \mathrm{X}_{2}$ and $\mathrm{X}_{3}$ is
(1) Less than any $\mathrm{r}_{12}, \mathrm{r}_{13}, \mathrm{r}_{23}$
(2) Not less than any $\mathrm{r}_{12}, \mathrm{r}_{13}, \mathrm{r}_{23}$
(3) Always equal to sum of $r_{12}, r_{13}, r_{23}$
(4) Always equal to product of $r_{12}, r_{13}, r_{23}$
59. Sampling is inevitable in the following situation(s):
(1) Blood test of a person
(2) When the population is infinite
(3) Testing of life of tubelights
(4) All of the above
60. In simple random sampling without replacement, the probability of selecting specified sample of size $n$ from a population of size $N$ is
(1) $\frac{n}{N}$
(2) $\frac{1}{\mathrm{~N}^{\mathrm{n}}}$
(3) $\frac{\mathrm{n}!(\mathrm{N}-\mathrm{n})!}{\mathrm{N}!}$
(4) None of the above
61. In stratified random sampling, which one of the following statements is true ?
(1) Sample mean is always an unbiased estimator of the population mean.
(2) Sample mean is an unbiased estimator of the population mean, if the sample is drawn using proportional allocation.
(3) Sample mean is always a biased estimator of the population mean.
(4) Sample mean is an unbiased estimator of the population mean, if the sample is drawn using optimum allocation.
62. If we have sample of size $n$ from a population of $N$ units, then match the following :
A. Inflation factor
I. $\frac{n}{N}$
B. Sampling fraction
II. $\frac{N-n}{N}$
C. Finite population correction
III. $\frac{\mathrm{N}}{\mathrm{n}}$

|  | A | B | C |
| :--- | :--- | :--- | :--- |
| (1) | I | II | III |
| (2) | II | I | III |
| (3) | III | II | I |
| (4) | III | I | II |

63. If sample size increases, then
a. sampling error increases.
b. sampling error decreases.
c. non-sampling error increases.
d. non-sampling error decreases.

Which of the above statements are correct?
(1) a and c
(2) a and d
(3) b and c
(4) b and d
64. In cluster sampling with varying cluster sizes, if mean of unit means is taken as a estimator of the population mean, then such an estimator will be an unbiased estimator of the population mean, if
(1) the size of a cluster and the cluster mean are uncorrelated
(2) the size of a cluster and the cluster total are uncorrelated
(3) the cluster mean is proportional to its size
(4) the product of cluster mean and its size is constant
65. A sampling technique in which only the first unit is selected with the help of random numbers and the rest get selected automatically according to some pre-designed pattern is known as
(1) Simple random sampling
(2) Systematic random sampling
(3) Stratified random sampling
(4) None of these
66. If a sample $X_{1}, X_{2}, \ldots, X_{n}$ from a dichotomous population has ' $n_{1}$ ' items of type $C_{1}$ with proportion ' p ' and ' $\mathrm{n}_{2}$ ' items of type $\mathrm{C}_{2}$ with proportion ' q ', then which of the given four relations does not hold?
(1) $\overline{\mathrm{x}}=\mathrm{p}$
(2) $\mathrm{q}=1-\mathrm{p}$
(3) $\mathrm{q}=\frac{\mathrm{n}_{2}}{\mathrm{n}}$
(4) $\mathrm{p}=\frac{\mathrm{n}}{\mathrm{n}_{1}}$
67. If Laspeyres' price index number is 196 and Paasche's price index number is 144 , then
I: Dorbish and Bowley's price index number is 170 .
II : Fisher's ideal price index number is 168.
Which of the statements given above is/are true?
(1) Only I is true
(2) Only II is true
(3) Both I and II are true
(4) Both I and II are false
68. Fisher's index number
(1) satisfies factor reversal test but does not satisfy time reversal test.
(2) satisfies time reversal test but does not satisfy factor reversal test.
(3) satisfies both; time reversal test and factor reversal test.
(4) neither satisfies factor reversal test nor satisfies time reversal test.
69. The unweighted price index number formula based on ' $n$ ' items with $p_{0 i}$ and $p_{1 i}$ being the prices of $i^{\text {th }}$ commodity in base year and current year respectively is
(1) $\sum_{i=1}^{n} \frac{p_{1 i}}{p_{0 i}}$
(2) $\sum_{i=1}^{n} \frac{p_{1 i}}{p_{0 i}} \times 100$
(3)
$\frac{\sum_{i=1}^{n} p_{1 i}}{\sum_{i=1}^{n} p_{0 i}} \times 100$
(4) None of the above
70. Match the following :

## Price index number

A. Laspeyres' index number
B. Paasche's index number
C. Fisher's ideal index number

|  | A | B | C |
| :--- | :--- | :--- | :--- |
| (1) | I | II | III |
| (2) | I | III | II |
| (3) | II | I | III |
| (4) | III | I | II |

(2) I III II
(4) III I II
71. For the consumer price index number, price quotations are collected from
(1) Retailers
(2) Wholesale dealers
(3) Fair price shops
(4) Government depots
72. If the index number for 1990 with base year 1980 is 250 , the index number for 198 with base year 1990 is
(1) 4
(2) 40
(3) 400
(4) None of the above
73. In case of a multiplicative model for explaining a time series, the sum of seasonal indices is
(1) 100 times the number of seasons
(2) zero
(3) 100
(4) Any of the above
74. If time series data contains 50 values and, if 5 -yearly moving average method is used to estimate trend, then we cannot estimate trend
(1) only for first year and second year in the data
(2) for first five years in the data
(3) only for last two years in the data
(4) for first two years and for last two years in the data
75. Match the following :
A. Secular Trend
I. Random movement
B. Seasonal Variation
II. Long term movement
C. Cyclical Variation
III. Period of less than one year
D. Irregular Variation
IV. Period of more than one year

|  | A | B | C | D |
| :--- | :--- | :--- | :--- | :--- |
| (1) | I | II | III | IV |
| (2) | II | III | I | IV |
| (3) | IV | II | III | I |
| (4) | II | III | IV | I |

76. In May 1951, the CSO was created for the purpose of promoting statistical standards and coordinating all statistical activities in the country. CSO stands for
(1) Central Security Office
(2) Central Safety Organisation
(3) Central Statistical Organisation
(4) Chief Statistical Officer

कच्च्या कामासाठी जागा / SPACE FOR ROUGH WORK
77. Match the following :
A. Governor of Reserve Bank of India
I. Dr. Raghuram Rajan
B. Secretary and Chief Statistician of India
II. Dr. T.C.A. Anant
C. Director General, Central Statistics Office
III. Mr. S.K. Das
D. Registrar General and Census Commissioner of India IV. Dr. C. Chandramouli

|  | A | B | C | D |
| :--- | :--- | :--- | :--- | :--- |
| (1) | I | II | III | IV |
| (2) | II | III | IV | I |
| (3) | IV | I | II | III |
| (4) | I | III | IV | II |

78. The Central Statistical Office (CSO) is responsible for
(1) co-ordinating statistical activities in the country
(2) conducting large scale sample surveys
(3) evolving statistical techniques for analysis of statistical data
(4) deciding topics to be covered in a particular survey round
79. Who was appointed Honorary Statistical Adviser to the Central Cabinet in 1949 ?
(1) Prof. P.C. Mahalanobis
(2) Dr. Amartya Sen
(3) Prof. C.R. Rao
(4) Dr. P.V. Sukhatme
80. In which district of Maharashtra is the sex ratio, Females to Males, in the total population, the highest as per population census 2011 ?
(1) Sindhudurg
(2) Ratnagiri
(3) Parbhani
(4) Gondiya
81. The Reserve Bank of India (RBI) is
(1) Issuer of Currency
(2) Manager of Foreign Exchange
(3) Formulator of Monetary Policy of Government
(4) All of the above
82. The Cash Reserve Ratio (CRR), Repo Rate and Reverse Repo Rate are controlled b
(1) Reserve Bank of India
(2) State Bank of India
(3) Department of Economics and Statistics
(4) C.S.O.
83. Which one of the following methods is not used in India for collecting vital statistics by the office of Registrar General ?
(1) Sample registration system
(2) Civil registration system
(3) Medical Certification of Cause of Death (MCCD)
(4) Online registration system
84. The female sex ratio (females per 1000 males) in India as per census 2011 (provisional) is
(1) 929
(2) 943
(3) 933
(4) 954
85. Vital statistics is a branch of biometry which deals with data and laws of human
a. mortality.
b. morbidity.
c. demography.

Which of the above are correct?
(1) a only
(2) b only
(3) a and b
(4) a, b and c
86. The crude death rates of two different localities in a given period are not identical even if age-specific death rates are correspondingly equal in all age-groups because
(1) the population sizes of two localities are not identical
(2) the total number of deaths in two localities are not identical
(3) the total number of deaths are equal but population sizes of two localities are different
(4) the age-distributions of two localities are not identical
87. If GRR and NRR stand respectively for Gross Reproduction Rate and Net Reproduction Rate then
(1) $\quad$ GRR $<$ NRR
(2) $\quad$ GRR $=\mathrm{NRR}$
(3) $\operatorname{GRR} \geq \mathrm{NRR}$
(4) None of the above
88. If $l_{x}$ denotes number of persons living at age $x$ years, then probability that a person aged $x$ will die between ages $x+m$ and $x+m+n$ years is given by
(1) $\frac{l_{\mathrm{x}}-l_{\mathrm{x}+\mathrm{m}+\mathrm{n}}}{l_{\mathrm{x}}}$
(2) $\frac{l_{\mathrm{x}+\mathrm{m}}-l_{\mathrm{x}+\mathrm{m}+\mathrm{n}}}{l_{\mathrm{x}}}$
(3) $\frac{l_{\mathrm{x}+\mathrm{m}}-l_{\mathrm{x}+\mathrm{m}+\mathrm{n}}}{l_{\mathrm{x}+\mathrm{m}}}$
(4) $\frac{l_{\mathrm{x}}-l_{\mathrm{x}+\mathrm{m}+\mathrm{n}}}{l_{\mathrm{x}+\mathrm{m}}}$
89. Total Fertility Rates accounts for
(1) Total number of births and total female population in a given locality in a given time period.
(2) Total number of female births and total female population in a given locality in a given time period.
(3) Number of births (male as well as female) age-groupwise to female population and the corresponding female population in child-bearing age-groups in a given locality in a given time period.
(4) Number of female births age-groupwise to female population in child-bearing age-groups in a given locality in a given time period.
90. The Crude Birth Rate can be calculated by the formula, given $\mathrm{A}=$ Total population at mid-year,
(1) $\frac{\text { No. of births in year }}{\mathrm{A}} \times 1000$
(2) $\frac{\text { No. of male births in year }}{A} \times 1000$
(3) $\frac{\text { No. of female births in year }}{A} \times 1000$
(4) None of the above
91. If the select period of a mortality table is three years, then probability that a p aged 25 years, who was selected one year ago, will survive for two more years given by
(1) $\frac{l_{[25]+2}}{l_{[25]}}$
(2) $\frac{l_{[27]}}{l_{[24]+1}}$
(3) $\frac{l_{[27]}}{l_{[24]}}$
(4) $\frac{l_{[27]}}{l_{[25]}}$
92. The number of persons dying at age 75 years is 476 and complete expectation of life at ages 75 years and 76 years are 3.00 and 2.50 years respectively. Therefore the number of persons living at age 76 years is equal to
(1) 2380
(2) 2830
(3) 2856
(4) 1904
93. When calculating G.D.P. using the expenditure approach, we consider
(1) Government and consumer spending
(2) Investment by businesses to acquire goods and services
(3) Excess of exports over imports
(4) All of the above
94. Gross National Product (GNP)
(1) includes income that foreigners earn from our country
(2) includes only factor incomes earned from abroad by residents of our country
(3) includes both, income earned by foreigners from our country and income earned from abroad by residents of our country
(4) includes factor incomes earned from abroad by residents of our country but excludes income that foreigners earn from our country
95. Which one of the following is not a case of 'Transfer Payments'?
(1) Income tax paid by the households to the government
(2) Bonuses given to employees
(3) Unemployment allowance
(4) Subsidies given by the government
96. Gross National Product (GNP), where
$A=$ income transactions from foreign sources to domestic firms, and $B=$ income transactions from domestic sources to foreign firms, is given by
(1) $\mathrm{GNP}=\mathrm{GDP}+\mathrm{A}-\mathrm{B}$
(2) $\mathrm{GNP}=\mathrm{NDP}+\mathrm{A}$
(3) GNP = GDP - B
(4) $\mathrm{GNP}=\mathrm{NDP}+\mathrm{A}-\mathrm{B}$
97. If economy is closed then
(1) GDP $>$ GNP
(2) GDP < GNP
(3) $\mathrm{GDP}=\mathrm{GNP}$
(4) None of the above
98. Which one of the following statements is true with respect to estimating National Income through 'Income Method'?
(1) Illegal money earned should be included.
(2) Windfall gains such as lotteries should be included.
(3) Receipts from sale of financial assets should be included.
(4) Transfer of payments such as gifts, donations, scholarships should be excluded.
99. The National Income estimation is subjected to erroneous calculation due to
a. self-consumed production.
b. price level changes.
c. exclusion of 'Transfer Payments'.
d. risk of double counting.
(1) $a, b$ and d are true, but $c$ is not true
(2) all options a, b, c and d are true
(3) $a$ and $b$ are true, but $c$ and d are not true
(4) only $c$ is true
100. If GDP is ₹ 90,000 Crores and the depreciation is $2 \%$ of GDP, then Net Domestic Product (NDP) is
(1) ₹ 91,800 Crores
(2) ₹ 90,200 Crores
(3) ₹ 1,800 Crores
(4) ₹ 88,200 Crores

## सूचना - (पृष्ठ 1 वरून पुढे.....)

(8) प्रश्नपुस्तिकेमध्ये विहित केलेल्या विशिष्ट जागीच कच्चे काम (रफ वर्क) करावे. प्रश्नपुस्तिकेव्यतिरिक्त उत्तरपत्रिकेवर वा इतर कागदावर कच्चे काम केल्यास ते कॉपी करण्याच्या उद्देशाने केले आहे, असे मानले जाईल व त्यानुसार उमेदवारावर शासनाने जारी केलेल्या "परीक्षांमध्ये होणान्या गैर्रकारांना प्रतिबंध करण्याबाबतचे अधिनियम-82" यातील तरतुदीनुसार कारवाई करण्यात येईल व दोषी व्यक्ती कमाल एक वर्षाच्या कारावासाच्या आणि/किंवा रुपये एक हजार रकमेच्या दंडाच्या शिक्षेस पात्र होईल.
(9) सदर प्रश्नपत्रिकेसाठी आयोगाने विहित केलेली वेळ संपल्यानंतर उमेदवाराला ही प्रश्नपुस्तिका स्वतःबरोबर परीक्षाकक्षाबाहेर घेऊन जाण्यास परवानगी आहे. मात्र परीक्षाकक्षाबाहेर जाण्यापूर्वी उमेदवाराने आपल्या उत्तरपत्रिकेचा भाग-1 समवेक्षकाकडे न विसरता परत करणे आवश्यक आहे.

## नमुना प्रश्न

प्र. क्र. 201. सतीची चाल नष्ट करण्यासाठी कोणी मूलत: प्रयत्न केले ?
(1) स्वामी दयानंद सरस्वरी
(2) ईश्वरचंद्र विद्यासागर
(3) राजा राममोहन रॉय
(4) गोपाळकृष्ण गोखले

ह्या प्रश्नाचे योग्य उत्तर " $(3)$ राजा राममोहन रॉय" असे आहे. त्यामुळे या प्रश्नाचे उत्तर " $(3)$ " होईल. यास्तव खालीलप्रमाणे प्र.क्र. 201 समोरील उत्तर-क्रमांक "(3)" हे वर्तुळ पूर्णपणे छायांकित करून दाखविणे आवश्यक आहे.
प्र.क्र. 201. (1) (2) (4)
अशा पद्धतीने प्रस्तुत प्रश्नपुस्तिकेतील प्रत्येक प्रश्नाचा तुमचा उत्तक्रमांक हा तुम्हाला स्वंतत्रीत्या पुरविलेल्या उत्तरपत्रिकेवरील त्या त्या प्रश्नक्रमांकासमोरील संबंधित वर्तुळ पूर्णपणे छायांकित करून दाखवावा. ह्याकरिता फक्त काळ्या शाईचे बॉलपेन वापरावे, पेन्सिल वा शाईचे पेन वापरू नये.

