

ENTRANCE EXAMINATION – 2021 – 22

SET – B

SSF JAMIA MILLIA ISLAMIA
New Delhi

900074

TUTEDU (U.S.) 2021


Signature of Invigilator

Time: 3 Hours

Total Marks: 170

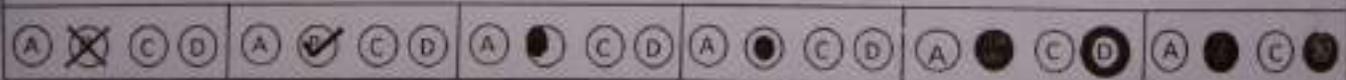
Instructions to Candidates

1. Do not write your name or put any other mark of identification anywhere in the OMR Response Sheet. IF ANY MARK OF IDENTIFICATIONS IS DISCOVERED ANYWHERE IN OMR RESPONSE SHEET, the OMR sheet will be cancelled, and will not be evaluated.
2. **This Question Booklet contains the cover page and a total of 170 Multiple Choice Questions of 1 mark each.**
3. Space for rough work has been provided at the beginning and end. Available space on each page may also be used for rough work.
4. There is negative marking in Multiple Choice Questions. For each wrong answer, 0.25 marks will be deducted.
5. USE/POSSESSION OF ELECTRONIC GADGETS LIKE MOBILE PHONE, iPhone, iPad, pager ETC. is strictly PROHIBITED.
6. Candidate should check the serial order of questions at the beginning of the test. If any question is found missing in the serial order, it should be immediately brought to the notice of the Invigilator. No pages should be torn out from this question booklet.
7. Answers must be marked in the OMR Response sheet which is provided separately. OMR Response sheet must be handed over to the invigilator before you leave the seat.
8. The OMR Response sheet should not be folded or wrinkled. The folded or wrinkled OMR/Response Sheet will not be evaluated.
9. Write your Roll Number in the appropriate space (above) and on the OMR Response Sheet. Any other details, if asked for, should be written only in the space provided.
10. There are four options to each question marked A, B, C and D. Select one of the most appropriate options and fill up the corresponding oval/circle in the OMR Response Sheet provided to you. The correct procedure for filling up the OMR Response Sheet is mentioned below.

CORRECT METHOD



WRONG METHODS



Directions -Read the passage carefully and choose the best answer for each question.

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In 1787, the twenty-eighth year of the reign of King George III, the British Government sent a fleet to colonize Australia. Never had a colony been founded so far from its parent state, or in such ignorance of the land it occupied. There had been no reconnaissance. In 1770 Captain James Cook had made landfall on the unexplored east coast of this utterly enigmatic continent, stopped for a short while at a place named Botany Bay and gone north again. Since then, no ship had called for not a word, not an observation, for 17 years, each one of which was exactly like the thousands that had preceded it, locked in its historical immensity of blue heat, blush, sandstone and the measured booming of glassy pacific rollers.

Now, this coast was to witness a new colonial experiment, never tried before, not repeated since. An unexplored continent would become a jail. The space around it, the very air and sea, the whole transparent labyrinth of the South pacific, would become a wall 14,000 miles thick.

The late 18th century abounded in schemes of social goodness thrown off by its burgeoning sense of revolution. But here, the process was to be reversed: not

utopia, but Dystopia; not Rousseau's natural man moving in moral grace amid free social contract, but man coerced, deracinated, in chains. Other parts of the Pacific, especially Tahiti, might seem to conform Rousseau. But the intellectual patrons of Australia, in its first colonial years, were Hobbes and Sade.

In their most sanguine moments, the authorities hoped that it would eventually swallow a whole class—the criminal class, whose existence was one of the prime sociological beliefs of late Georgian and early Victorian England. Australia was settled to defend English property not from the frog-eating invader across the Channel but from the marauder within. English lawmakers wished not only to get rid of the Criminal class but if possible to forget about it. Australia was a Cloaca, invisible, its contents filthy and unnamable.

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To most Englishmen this place seemed not just a mutant society but another planet—an exiled world, summed up in its popular name, Botany Bay. It was remote and anomalous to its white creators. It was strange but close, as the unconscious to the conscious mind. There was as yet no such thing as Australian history or culture. For its first forty years, everything that happened in the thief-colony was English. In the whole period of convict transportation, the Crown shipped more than 160,000 men, women and children (due to defects in the

records, the true number will never be precisely known) in bond age to Australia. This was the largest forced exile of citizens at the behest of a European government in pre-modern history. Nothing in earlier penology compares with it. In Australia, England drew the sketch for our own century's vaster and more terrible fresco of repression, the Gulag. No other country had such a birth, and its pangs may be said to have begun on the afternoon of January 26, 1788, when a fleet of eleven vessels carrying 1,030 people, including 548 male and 188 female convicts, under the command of captain Arthur Phillip in his flagship Sirius, entered Port Jackson or, as it would presently be called, Sydney Harbor.

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1. When the author refers to "the marauder within", he is referring to:-
 - A. the working class
 - B. the lower class
 - C. the criminal class
 - D. the Loch Ness monster

2. According to the passage, the intellectual mentors of Australia could be-
 - A. Hobbes and Cook
 - B. Hobbes and Sade
 - C. Phillip and Jackson
 - D. Sade and Phillip

3. Which of the following does not describe what the English regarded Australia to be-?

- A. a mutant society B. an exiled world
C. an enigmatic continent D. a new frontier

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4. Elsewhere, according to the author, the late eighteenth century saw a plethora of -

- A. moral grace B. social welfare programs
C. free social contracts D. Social repression

5. The word sanguine means-

- A. wise
B. pessimistic
C. the rise of the criminal class" and its impact on the life of Georgian England
D. confident

6. The primary theme of the passage is-
- A. the colonization of Australia
 - B. the first forty years of Australian history
 - C. the rise of the criminal class" and its impact on the life of Georgian England
 - D. the establishment of Australia as a penal colony

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7. One of the hallmarks of the late Georgian and early Victorian England was the belief in-
- A. repression of the criminal class
 - B. Convict transportation
 - C. colonization as a solution to social problems
 - D. the existence of a criminal" class of people
8. What is penology?
- A. The study of transportation of criminals
 - B. The study of punishment in its relation to crime
 - C. The study of pens
 - D. The study of ink flow of pens

9. According to the passage, which of the following statements is not true?
- A. During the seventeen years after Captain James Cook made landfall at Botany Bay, the British made several observation trips to Australia
 - B. Australia was settled by the British to protect their property from some of their own kin
 - C. The author implies that while Rousseau was vindicated in the functioning of the society of Tahiti, the process in Australia presented a contrary picture
 - D. All are true

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10. Sydney Harbor was earlier known as-
- A. Port Jackson
 - B. Botany Bay
 - C. Storm Bay
 - D. Norfolk Bay

Directions: In each of the following questions a part of a paragraph or sentence has been underlined. From the choices given, you are required to choose the one which would best replace the underlined part

11. Contemplating whether to exist with an insatiable romantic temperature, he was the author and largely the subject of a number of memorable novels
- A. Contemplating whether to exist
 - B. Combining realistic detail
 - C. Miscegenating a brilliant mind
 - D. Aware that he had been born

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12. How many times have I asked myself: when is the world going to start to make sense? There is a monster out there, and it is rushing towards me over the uneven ground of consciousness.
- A. There is a monster out there
 - B. It is as if the world is on my shoulders
 - C. The answer is out there somewhere
 - D. There is a sea of sensibility in me

13. The donation was such that as I was expected him to donate

A. so that as I expected

B. such that I expected of

C. such as that I expect

D. No correction required

Directions - Read the passage carefully and choose the best answer for each question.

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At the heart of the enormous boom in wine consumption that has taken place in the English-speaking world over the last two decades or so is a fascinating, happy paradox. In the days when wine was exclusively the preserve of a narrow cultural elite, bought either at auctions or from gentleman wine merchants in wing collars and bow-ties, to be stored in rambling cellars and decanted to order by one's butler, the ordinary drinker didn't get a look-in. Wine was considered a highly technical subject, in which anybody without the necessary ability could only fall flat on his or her face in embarrassment. It wasn't just that you needed a refined aesthetic sensibility for the stuff if it was not to be hopelessly wasted on you. It required an intimate knowledge of what came from where, and what it was supposed to taste like. Those were times, however, when wine appreciation

essentially meant a familiarity with the great French classics, with perhaps a smattering of other wines- like sherry and port. That was what the wine trade dealt in. These days, wine is bought daily in supermarkets and high-street chains to be consumed that evening, hardly anybody has a cellar to store it in and most don't even possess a decanter. Above all, the wines of literally dozens of countries are available on our market. When a supermarket offers its customers a couple of fruity little numbers from Brazil, we scarcely raise an eyebrow. It seems, in other words, that the commercial jungle that wine has now become has not in the slightest deterred people from plunging adventurously into the thickets in order to taste and see. Consumers are no longer intimidated by the thought of needing to know their Pouilly-Fume from their Pouilly-Fuisse, just at the very moment when there is more to know than ever before. The reason for this new mood of confidence is not hard to find . It is on every wine label from Australia, New Zealand, South Africa and the United States: the name of the grape from which the wine is made. At one time that might have sounded like a fairly technical approach in itself. Why should native English-speakers know what Cabernet Sauvignon or Chardonnay were? The answer lies in the popularity that wines

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made from those grape varieties now enjoy . Consumers effectively recognize them as brand names, and have acquired a basic lexicon of wine that can serve them even when confronted with those Brazilian upstarts.

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In the wine heartlands of France, they are scared to death of that trend- not because they think their wine isn't as good as the best from California or South Australia (what French winemaker will ever admit that?) but because they don't traditionally call their wines Cabernet Sauvignon or Chardonnay. They call them Chateau Ducru -Beaucaillou or Corton -Charlemagne, and they aren't about to change. Some areas, in the middle of southern France, have now produced a generation of growers using the varietal names on their labels and are tempting consumers back to French wine. It will be an uphill struggle, but there is probably no other way if France is to avoid simply becoming a specialty source of old-fashioned wines for old- fashioned connoisseurs. Wine consumption was also given a significant boost in the early 1990s by the work of Dr. Serge Renaud, who has spent many years investigating the reasons for the uncannily low incidence of coronary heart disease in the south of France. One of his major findings is that the fat-derived cholesterol that builds up in the arteries and can eventually lead to heart trouble can be dispersed by the tannins in wine. Tannin is derived from the skins of grapes, and is therefore present in higher levels in red wines, because they have to be infused with their skins to attain the red colour. That news caused

17. The development which has created fear among winemakers in the wine heartlands of France is the
- A. tendency not to name wines after the grape varieties that are used in the wines
 - B. 'education' that consumer has derived from wine labels from English-speaking countries
 - C. new generation of local winegrowers who use labels that show names of grape varieties
 - D. Ability of consumers to understand a wine's qualities when confronted with "Brazilian upstarts"

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18. Which one of the following, if true, would provide most support for Dr. Renaud's findings about the effect of tannins?
- A. A survey showed that film celebrities based in France have a low incidence of coronary heart disease
 - B. Measurements carried out in southern France showed red wine drinkers had significantly higher levels of coronary heart incidence than white wine drinkers did.
 - C. Data showed a positive association between sales of red wine and incidence of coronary heart disease
 - D. Long-term survey in southern France showed that the incidence of coronary heart disease was significantly lower in red wine drinkers than in those who did not drink red wine

21. You and I was (I)/ supposed to finish (II)/ this work before (III)/ leaving office today. (IV)

A. I

B. II

C. III

D. IV

Directions - In the following questions, a sentence has been divided into three parts, labelled (a), (b) and (c). From among the labelled parts, select the one that has an error. If there is no error in the statement, mark option (d), i.e.

'No error' as your answer.

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22. After the Colonel was done with his routine inspection, (a)/ the privates stood at ease, (b)/ though the sun scorched their faces (c). No error (d).

A. a

B. b

C. c

D. d

23. Having thus shorn seventeen sheep of their wool, (a)/ O' Reilley gathered the wool in a heap (b) and tossed it onto the rafters(c). No error (d).

A. a

B. b

C. c

D. d

Directions - Choose the word which is most nearly the same in meaning to the bold word.

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24. Gratify

A. Satisfy

B. Disappoint

C. Restrain

D. Supply

25. Eulogy

A. Curse

B. Occupy

C. Praise

D. Doubt

26. Mollify

A. Alienate

B. Conciliate

C. Coddle

D. Manhandle

Directions - Choose the word which is most nearly the opposite in meaning to the bold ward given below.

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27. Clamour

A. Settling

B. Murmur

C. Peccant

D. Quiet

28. "The battle ended in victory for the royal imperial troops," says the laconic report of success.

A. verbose

B. aphoristic

C. succinct

D. lengthy

Directions - Choose the alternative which best expresses the meaning of the idiom from the options given.

29. I can eat a horse
- A. I can do anything to reach my goal
 - B. I can defeat the strong
 - C. I am a foodie
 - D. I am a foodie
30. Rain or shine
- A. Whatever the circumstances
 - B. Live in poverty
 - C. Behave moodily
 - D. Relax oneself
31. Going Dutch
- A. Behave like a Dutchman
 - B. Drink Jots of wine
 - C. Dress elegantly
 - D. Pay for your share
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32. Play it by ear
- A. Follow the instructions thoroughly
 - B. Say something that is emotional and sweet
 - C. Play music by remembering the sound rather than reading notes
 - D. Behave whimsically

33. Cut to the chase

- A. Stop following someone B. Quit the game
C. Get to the point D. Reveal the truth

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Directions - Choose the most appropriate option for filling in the blanks. The sequence of words in the correct option should match the sequence of the sentences in which they should be used.

34. i. There is so much lovethe two of them.
ii. I have not seen Aditi..... Friday.
iii. I started my exam preparationJanuary.
iv. The three sisters did not look for new friend as they were quite happy playing themselves.
v. I have not seen Mohansix months.
- A. between, from, since, among, for
B. among, from, for, between, since
C. among, since, for, between, from
D. between, since, from, among, for

35. i. He succeededperseverance and sheer hard work.
ii.the power vested in me, I hereby declare these premises sealed.
iii.his illness he could not finish his work in time.
iv.need, please contact me at the emergency number indicated.

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- A. by virtue of, by dint of, in case of, in consequence of
B. by dint of, by virtue of, in consequence of, in case of
C. by virtue of, in consequence of, by dint of, in case of
D. by dint of, in consequence of, by virtue of, in case of

Directions - The following questions are independent of each other.

36. Pick the word with the correct spelling.

- A. Acqueisence B. Acquiescence
C. Acaueiscence D. Acquescience

37. Pick the odd word out

A. Propitiate

B. Appreciate

C. Appease

D. Conciliate

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Directions - The poem given below is followed by five questions. Choose the best answer to each question.

As you set out for Ithaka

hope the journey is a long one,

full of adventure, full of discovery.

Laistrygonians and Cyclops,

angry Poseidon - don't be afraid of them :

you'll never find things like that on your way

as long as you keep your thoughts raised high,

as long as a rare excitement

stirs your spirit and your body.

Laistrygonians and Cyclops,

wild Poseidon - you won't encounter them

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unless you bring them along inside your soul,

unless your soul sets them up in front of you.

Hope the voyage is a long one,

may there be many a summer morning when,

with what pleasure, what joy,

you come into harbours seen for the first time:

may you stop at Phoenician trading stations

to buy fine things,

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mother of pearl and coral, amber and ebony.

sensual perfume of every kind

- as many sensual perfumes as you can;

and may you visit many Egyptian cities

to gather stores of knowledge from their scholars.

Keep Ithaka always in your mind.

Arriving there is what you are destined for.

But do not hurry the journey at all.

Better if it lasts for years,

so you are old by the time you reach the island,

wealthy with all you have gained on the way,
not expecting Ithaka to make you rich .
Ithaka gave you the marvellous journey,
without her you would not have set out.
She has nothing left to give you now.
And if you find her poor,
Ithaka won't have fooled you.
Wise as you will have become,
so full of experience,
you will have understood by then what these Ithakas mean.

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38. Which of the following best reflects the central theme of this poem?
- A. If you don't have high expectations, you will not be disappointed.
 - B. Don't rush to your goal; the journey is what enriches you.
 - C. The longer the journey the greater the experiences you gather.
 - D. You cannot reach Ithaka without visiting Egyptian ports.

39. The poet recommends a long journey. Which of the following is the most comprehensive reason for it?

- A. You can gain knowledge as well as sensual experience.
- B. You can visit new cities and harbours.
- C. You can experience the full range of sensuality.
- D. You can buy a variety of fine things.

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40. In the poem, Ithaka is a symbol of

- A. the divine mother
- B. your inner self
- C. the path to wisdom
- D. life's distant goal

41. What does the poet mean by 'Laistrygonians' and 'Cyclops'?

- A. Creatures which, along with Poseidon, one finds during a journey
- B. Mythological characters that one should not be afraid of.
- C. Intra-personal obstacles that hinder one's journey
- D. Problems that one has to face to derive the most from one's journey

42. Which of the following best reflects the tone of the poem?

- A. Prescribing
- B. Exhorting
- C. Pleading
- D. Consoling

Directions - In each of the following question, a word is used in four different ways. Choose the option in which the usage of the word is INCORRECT or INAPPROPRIATE

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43. Bundle

- A. The new born baby was a bundle of joy for the family.
- B. Mobile operators are offering a bundle of additional benefits.
- C. He made a bundle in the share market.
- D. It was sheer luck that brought a bundle of boy-scouts to where I was lying wounded

44. Distinct

- A. He is distinct about what is right and what is wrong.
- B. Mars became distinct on the horizon in the months of August.
- C. The distinct strains of Ravi's violin could be heard above the general din.
- D. Ghoshbabu's is a distinct case of water rising above its own level.

45. Implication
- A. Everyone appreciated the headmaster's implication in raising flood relief in the village.
 - B. This letter will lead to the implication of several industrialists in the share market scam.
 - C. Several members of the audience missed the implication of the minister's promise.
 - D. Death, by implication, is the only solution the poem offers the reader.

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46. Host
- A. If you host the party, who will foot the bill?
 - B. Kerala's forests are host to a range of snakes.
 - C. Ranchi will play the host to the next national film festival.
 - D. A virus has infected the host computer.

47. Sort

- A. What sort of cheese do you use in pizza?
- B. Farmers of all sort attended the rally.
- C. They serve tea of a sort on these trains.
- D. Let's sort these boys into four groups.

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Directions - Data is provided followed by two statements - I and II - both resulting in a value, say I and II. Evaluate these values for each of the following questions separately.

48. Nineteen year from now Jackson will be 3 times as old as Joseph is now.

Johnson is three years younger than Jackson.

- I. Johnson's age now
 - II. Joseph's age now
- A. $I > II$
 - B. $I < II$
 - C. $I = II$
 - D. Nothing can be said

leaving half his property to his widow and half to his brothers Carl and Dave together, shared equally. When Carl makes his will he keeps half his property for his widow and the rest he bequeaths to his younger brother Dave. When Dave dies some years later, he keeps half his property for his widow and the remaining for his mother. The mother now has Rs.1,575,000.

51. What was the worth of the total property?
- A. Rs. 30 lakh B. Rs. 8 lakh
C. Rs. 18 lakh D. Rs.24 lakh

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52. What was Carl's original share?
- A. Rs. 4 lakh B. Rs. 12 lakh
C. Rs. 6 lakh D. Rs. 5 lakh
53. What was the ratio of the property owned by the widows of the three sons, in the end?
- A. 7: 9: 13 B. 8: 10: 15
C. 5: 7: 9 D. 9: 12: 13

Directions - The following operations are defined for real numbers $a \# b = a + b$

if a and b are positive else $a \# b = 1$. $a \nabla b = (ab)^{a+b}$ if ab is positive else $a \nabla b = 1$

54. $\frac{2 \# 1}{1 \nabla 2} =$

A. $1/8$

B. 1

C. $3/8$

D. 3

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55. $\{(1 \# 1) \# 2\} - (10^{1.3} \nabla \log_{10} 0.1) / (1 \nabla 2) =$

A. $3/8$

B. $4 \log_{10} 0.1/8$

C. $(4 + 10^{1.3})/8$

D. None of these

56. $\left(\frac{X \# -Y}{-X \nabla Y}\right) = 3/8$, then which of the following must be true?

A. $X=2, Y=1$

B. $X > 0, Y < 0$

C. X, Y both positive

D. X, Y both negative

59. Out of two-thirds of the total number of basket ball matches, a team has won 17 matches and lost 3 of them. What is the maximum number of matches that the team can lose and still win more than three fourths of the total number of matches, if it is true that no match can end in a tie?

A. 4

B. 6

C. 5

D. 3

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Directions - Each of these questions is followed by two statements, I and II.

Choose 1. if the question can be answered with the help of statement I alone.

Choose 2. if the question can be answered with the help of statement II, alone.

Choose 3. if both statement I and statement II are needed to answer the question.

Choose 4. if the question cannot be answered even with the help of both the statements.

60. If x , y and z are real numbers, is $z - x$ even or odd?

I. xyz is odd.

II. $xy + yz + zx$ is even.

A. 1

B. 2

C. 3

D. 4

61. What is the first term of an arithmetic progression of positive integers?

I. Sum of the squares of the first and the second term is 116.

II. The fifth term is divisible by 7.

A. 1

B. 2

C. 3

D. 4

62. What is the number x ?

I. The LCM of x and 18 is 36.

II. The HCF of x and 18 is 2.

A. 1

B. 2

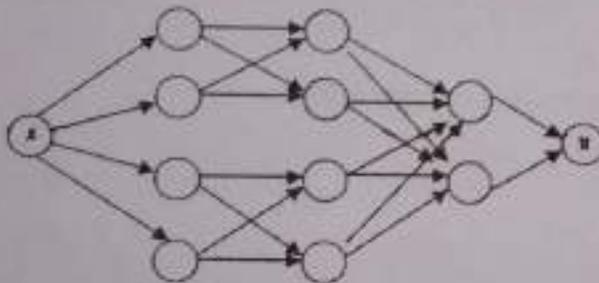
C. 3

D. 4

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Directions - The following questions are independent of each other.

63. What is the total number of ways to reach A to B in the network given?



A. 12

B. 16

C. 20

D. 22

67. The adjoining figure shows a set of concentric squares. If the diagonal of the innermost square is 2 units, and if the distance between the corresponding corners of any two successive squares is 1 unit, find the difference between the areas of the eighth and the seventh squares, counting from the innermost square.



- A. $10\sqrt{2}$ sq units B. $35\sqrt{2}$ sq units
C. 30 sq units D. None of these

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68. Two fair six-faced dice A and B be thrown simultaneously. If E_1 is the events that die A shows up four, E_2 is the event that die B shows up two and E_3 is the event that the sum of numbers on both dice is odd, then which of the following statements is NOT true?
- A. E_1, E_2 and E_3 are independent
B. E_1 and E_2 are independent
C. E_2 and E_3 are independent
D. E_1 and E_3 are independent

69. For which value of k does the following pair of equations yield a unique solution for x such that the solution is positive?

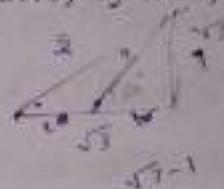
$$x^2 - y^2 = 0, (x - k)^2 + y^2 = 1$$

- A. 2
B. 0
C. $\sqrt{2}$
D. $-\sqrt{2}$

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70. A man is walking towards a vertical pillar in a straight path, at a uniform speed. At a certain point A on the path, he observes that the angle of elevation of the top of the pillar is 30° . After walking for 10 minutes from A in the same direction, at a point B, he observes that the angle of elevation of the top of the pillar is 60° . Then the time taken (in minutes) by him, from B to reach the pillar, is -

- A. 5
B. 6
C. $\sqrt{2}$
D. $-\sqrt{2}$



71. If $a \in \mathbb{R}$ and the equation $-3(x - [x])^2 + 2(x - [x]) + a^2 = 0$; where $[x]$ denotes the greatest integer x has no integral solution, then all possible values of a lie in the interval -

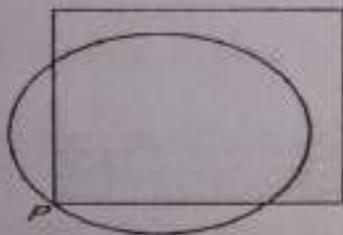
- A. $(-1, 0) \cup (0, 1)$
B. $(1, 2)$
C. $(-2, -1)$
D. $(-\infty, -2) \cup (2, \infty)$

78. P , Q , S , and R are points on the circumference of a circle of radius r , such that PQR is an equilateral triangle and PS is a diameter of the circle. What is the perimeter of the quadrilateral $PQSR$?

- A. $2r(1 + \sqrt{3})$ B. $2r(2 + \sqrt{3})$
 C. $r(1 + \sqrt{5})$ D. $2r + \sqrt{3}$

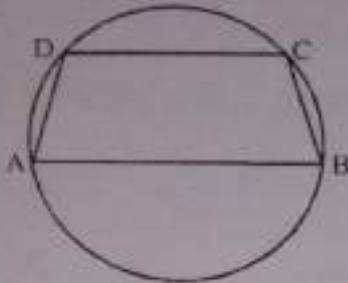
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79. A punching machine is used to punch a circular hole of diameter two units from a square sheet of aluminum of width 2 units, as shown below. The hole is punched such that circular hole touches one corner P of the square sheet and the diameter of the hole originating at P is in line with a diagonal of the square. The proportion of the sheet area that remains after punching is-



- A. $\frac{6-\pi}{8}$ B. $\frac{\pi+2}{8}$
 C. $\frac{4-\pi}{4}$ D. $\frac{\pi-2}{4}$

80. In the given figure, AB is diameter of the circle and points C and D are on the circumference such that $\angle CAD = 30^\circ$ and $\angle CBA = 70^\circ$. What is the measure of $\angle ACD$?



- A. 40° B. 50°
 C. 30° D. 90°

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81. Let C be a circle with centre P_0 and AB be a diameter of C . Suppose P_1 is the mid-point of the line segment P_0B , P_2 is the mid-point of the line segment P_1B and so on. Let C_1, C_2, C_3, \dots be circles with diameters $P_0P_1, P_1P_2, P_2P_3, \dots$ respectively. Suppose the circles C_1, C_2, C_3, \dots are all shaded. The ratio of the area of the unshaded portion of C to that of the original circle C is -

- A. 8:9 B. 9:10
 C. 10:11 D. 11:12

82. The variance of first 50 even natural numbers is -

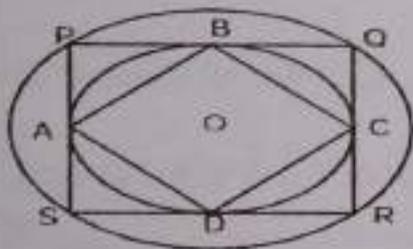
- A. $833/7$ B. 833
C. 467 D. $467/5$

83. How many numbers can be made with digits 0, 7, 8 which are greater than 0 and less than a million?

- A. 496 B. 486
C. 1084 D. 728

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84. The figure below shows two concentric circles with centre O. PQRS is a square inscribed in the outer circle. It also circumscribes the inner circle, touching it at points B, C, D and A. What is the ratio of the perimeter of the outer circle to that of polygon ABCD?



- A. $\frac{\pi}{4}$ B. $\frac{3\pi}{2}$
C. $\frac{\pi}{2}$ D. π

85. If a company has a revenue function $R = 100q - q^2$, and cost function

$C = q^3 - \frac{57}{2}q^2$, what is the maximum profit?

- A. 4000
B. 1000
C. 13000
D. None of these

86. Complete the series 2, 6, 12, 20, 30, 42,.....?

- A. 50
B. 52
C. 54
D. 56

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87. In a kilometer race, if X gives Y 30 m start, X wins by 20 seconds but if X gives Y 30 seconds start, Y wins by 20 m. find the speed of Y.

- A. 5.25
B. 4.75
C. 4.15
D. 4.00

88. There are 190 chairs they are to be arranged in rectangular manner. Initially, when the chairs are arranged 5 more chairs are needed. When number of rows is increased by 2, 35 more chairs are needed then how many rows were there initially?

- A. 17
B. 13
C. 15
D. 18

92. In Nuts and Bolts factory, one machine produces only nuts at the rate of 100 nuts per minute and needs to be cleaned for 5 minutes after production of every 1000 nuts. Another machine produces only bolts at the rate of 75 bolts per minute and needs to be cleaned for 10 minutes after production of every 1500 bolts. If both the machines start production at the same time, what is the minimum duration required for producing 9000 pairs of nuts and bolts?

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- A. 130 minutes B. 135 minutes
C. 170 minutes D. 180 minutes

93. A father and his son are waiting at a bus stop in the evening. There is a lamp post behind them. The lamp post, the father and his son stand on the same straight line. The father observes that the shadows of his head and his son's head are incident at the same point on the ground. If the heights of the lamp post, the father and his son are 6 metres, 1.8 metres and 0.9 metres respectively, and the father is standing 2.1 metres away from the post, then How far (in metres) is the son standing from his father?

- A. 0.9 B. 0.75
C. 0.6 D. 0.45

Directions: A number of sentences are given below which, when properly sequenced, form a coherent paragraph, each sentence is labelled with a letter. Choose the most logical order of sentences from among the four given chances to construct a coherent paragraph.

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100.

- a. This is probably one of the reasons why the number of women and men remain roughly equal in most societies.
- b. Fortunately, or unfortunately, individual couples cannot really be concerned about this overall 'error'.
- c. Population growth then can be considered the error of this central process.
- d. Purely at the human level, it appears that most couples like to have at least one living daughter and one living son when they are in the middle ages.

A. cbda

B. dacb

C. dcba

D. cdab

101.

- a. Against this background, the current target of 12.8 percent does not seem that high a figure.
- b. A better vantage point to evaluate the 12.8 percent target for export growth is our performance in the 'golden years' between 1986 - 87 and 1990 - 91, during which time exports in dollar terms increased by 17.1percent.
- c. In fact, the rate of growth would have to increase still further if we are to achieve the eighth plan target of export growth in value terms of 13.6 percent per annum.
- d. Even in 1990 - 91, the year of the Gulf War, exports went up by 9 percent.

A. bdac

B. bead

C. dabc

D. acbd

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continuously more than three times; the value of the numeral is the sum of the values of the symbols. For example, XXVII = 10 + 10 + 5 + 1 + 1 = 27. An exception to the left-to-right reading occurs when a symbol is followed immediately by a symbol of greater value; then, the smaller value is subtracted from the large. For example, XLVI = (50 - 10) + 5 + 1 = 46.

105. The value of the numeral MDCCLXXXVII is

- | | |
|---------|---------|
| A. 1687 | B. 1787 |
| C. 1887 | D. 1987 |

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106. The value of the numeral MCMXCIX is

- | | |
|---------|---------|
| A. 1999 | B. 1899 |
| C. 1989 | D. 1889 |

107. Which of the following can represent the numeral for 1995?

- | | |
|---------------------|---------------------|
| (a) MCMLXXV | (b) MCMXCV |
| (c) MVD | (d) MVM |
| A. only (a) and (b) | B. only (c) and (d) |
| C. only (b) and (d) | D. only (d) |

Directions: In each of the following questions a pair of capitalized words is followed by four pair of words. You are required to mark as the answer the pair of words which have a relationship between them most similar to the relationship between the capitalized pair.

108. Liquid: Gaseousness

- | | |
|-----------------|-----------------|
| A. Serum: Fume | B. Humid: Arid |
| C. Thaw: Distil | D. Smoke: Cloud |

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109. Fission: Fusion

- | | |
|-------------------------|----------------------------|
| A. implosion: Explosion | B. Separation: Combination |
| C. Intrusion: Extrusion | D. Enemy: Friend |

110. Doubt: Faith

- | | |
|----------------------|--------------------|
| A. Atheist: Religion | B. Sceptic: Pious |
| C. Iconoclast: Idol | D. Apostate: State |

111. Brick: Building

- | | |
|---------------------|---------------------|
| A. Word: Dictionary | B. Alphabet: Letter |
| C. Platoon: Soldier | D. Idiom: Language |

- I. A symbiotic relationship develops among the contractors, bureaucracy and the politicians, and by a large number of devices, costs are artificially escalated and black money is generated by underhand deals.
- II. A symbiotic relationship develops among contractors, bureaucracy and politicians, and are artificially escalated with a large number of devices and black money is generated through underhand deals.
- III. A symbiotic relationship develops among contractors, bureaucracy and the politicians, and by a large number of devices costs are artificially escalated and black money is generated on underhand deals.
- IV. A symbiotic relationship develops among the contractors, bureaucracy and politicians, and by large number of devices costs are artificially escalated and black money is generated by underhand deals.

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I. Any action of government to reduce the systemic risk inherent in financial markets will also reduce the risk that private operators perceive and there by encourage excessive hedging.

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II. Any action by government to reduce the systemic risk inherent in financial markets will also reduce the risks that private operators perceive and thereby encourage excessive gambling.

III. Any action by government to reduce the systemic risk inherent due to financial markets will also reduce that risks that private operators perceive and thereby encourages excessive hedging.

IV. Any action of government to reduce the systemic risk inherent to financial markets will also reduce the risks that private operators perceive and thereby encourage excessive gambling.

A. I

B. II

C. III

D. IV

Directions - The following question are independent of each other.

150. The practice of funding a project or venture by raising small amounts of money from a large number of people, typically via the Internet is termed as-

- A. Consortium Financing
- B. Bidding
- C. Crowd funding
- D. Sourcing

151. Cloud computing means-

- A. Carbon transfers on commodity exchanges
- B. Computing under disaster conditions
- C. Use of computing resources which are available in a remote location and accessible over a network
- D. None of these

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152. A computer virus is a _____

- A. operating system
- B. hash function
- C. program
- D. packet

153. Which is the best way to secure an electronic document?
- A. Sharing with colleagues B. Keeping multiple copies
C. Protecting with password D. None of these
154. With reference to Income Tax Act, 1961, advance tax payment is optional for companies. This is-
- A. True B. Sometimes true
C. False D. Cannot Say
155. Repo rate is the rate used by central banks -
- A. To improve the risk profile of the banks
B. To enhance speedy collection of taxes
C. To control inflationary situations
D. To minimize inequalities of income in the country

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156. Angel investors are considered to be the opposite of -
- A. Arbitrageurs B. Venture capitalists
C. Hedge funds D. Global investors

157. Inorganic growth of enterprises may be due to-

- A. Tax Planning
- B. Transfer Pricing
- C. Mergers and Acquisitions
- D. Consolidation of financial statements

158. Special purpose vehicle is -

- A. Nationwide financial inclusion programme launched by RBI
- B. Remedial measure in the credit provisioning problem
- C. Cross border financing mechanism
- D. None of these

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159. As per the deposit insurance scheme, each depositor in a bank is insured up to a maximum of _____ for both principal and interest amount held by him/her in the same right and same capacity as on the date of liquidation or the cancellation of bank's license or the date on which the banks get amalgamated or merged with another bank.

- A. ₹1 lakh
- B. ₹2 lakh
- C. ₹5 lakh
- D. ₹9 lakh

160. In India, the inflation is measured by-

- A. Wholesale Price Index B. Consumer Services Index
C. Incremental Inflation Index D. Producer Price Index

161. The current base year for GDP measurement is-

- A. 2009-10 B. 2011-12
C. 2012-13 D. 2016-17

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162. The proposed bad bank in India refers to -

- A. National Capital Management Company Ltd. (NCMCL)
B. National Bank Revival Corporation Ltd. (NBRCL)
C. National Asset Reconstruction Company Ltd. (NARCL)
D. National Asset Management Company Ltd. (NAMCL)

163. Method to safeguard against losses due to currency fluctuations is popularly known as:

- A. Risk
- B. Premium
- C. Hedging
- D. Round Tripping D Bond Indexation

164. Which of the following is not correct about Regional Comprehensive Economic Partnership (RCEP)?

- A. It is a Free Trade Agreement of 16 countries of Asia Pacific Region including India.
- B. Member states account for a population of 3.4 billion people with a total Gross Domestic Product (GDP) of \$49.5 trillion (at PPP).
- C. RCEP potentially includes more than 3 billion people or 45% of the world's population
- D. Combined GDP of negotiating member states is about \$21.3 trillion, accounting for about 40 percent of world trade

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165. Which of the following is not correct for Government of India's initiative "Make in India"?

- A. It is launched by Prime Minister of India in 2014
- B. It aims to attract Foreign Investment for faster industrial development of India
- C. It aims to substitute the imports of India
- D. It focuses on the twenty-five sectors of the economy for faster economic growth, export promotion and employment generation

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166. The Economic Survey 2019 has proposed a change in the Beti Bachao Beti Padhao (BBBP) scheme. The campaign, to be labeled _____ will be used to represent the change towards gender equality.

- A. Bahaar
- B. Betiya
- C. Badlav
- D. Bandhan

167. Recently, which of the following scheme has launched by Union Ministry of Skill Development and Entrepreneurship?

- A. Pradhan Mantri Jeevan Jyoti Bima Yojana
- B. Pradhan Mantri Yuva Yojana
- C. MUDRA Bank Yojana
- D. Pradhan Mantri Surakshit Matritva Abhiyan

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168. The Reserve Bank of India has joined the Central Banks and Supervisors 'Network for Greening the Financial System (NGFS)' as a member. Where is the Secretariat of NGFS located?

- A. Paris
- B. Geneva
- C. Rome
- D. London

169. The 'Prime Global Cities Index Q 1 2021' report is published by which entity?

- A. KPMG Global
- B. Knight Frank
- C. REITs
- D. Cushman and Wakefield

170. Financial Inclusion is -

- A. Representation of all segment of the economy in the financial system
- B. Delivery of financial services at affordable costs to sections of disadvantaged and low-income segments.
- C. Funding by the government to the low- income segments
- D. All of above

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