

PART—A

Directions : Each of the **five** items given below has a phrase given in italics. Choose the one from among the options (a), (b), (c) and (d) that best describes the phrase and mark your response in the Answer Sheet accordingly.

1. Her poetry not only succeeds in brilliantly capturing the beauty of nature but also carries the power to suggest that which is *too great and beautiful to be expressed in words*.
 - (a) the unknown
 - (b) the proscribed
 - (c) the intangible
 - (d) the ineffable
2. The Government's policies were aimed at relieving the distress of the homeless, the unemployed and *the poverty-stricken* sections of society.
 - (a) needy
 - (b) indigent
 - (c) disadvantaged
 - (d) challenged
3. The organizers refused to allow him to speak at the function since he was known to make *speeches that tended to provoke and ignite passions*.
 - (a) irreverent speeches
 - (b) incendiary speeches
 - (c) unsubstantiated speeches
 - (d) irrelevant speeches
4. She was criticized for her views that were often *restricted to small local issues* and ignored matters of national importance.
 - (a) unilateral
 - (b) illiberal
 - (c) parochial
 - (d) limited
5. When profits began *dropping steeply all of a sudden* he realized that he ought to wind up his business soon.
 - (a) precipitously
 - (b) instantaneously
 - (c) cataclysmically
 - (d) dramatically

Directions : Read the following passage carefully and answer the **five** questions that follow by selecting your answers based solely on the content of the passage and the opinion of the author only.

The millet project of the MS Swaminathan Research Foundation had three objectives—to preserve crop diversity in local millet varieties, to increase production and the consumption of millets, and to enhance farm incomes. The Kolli Hills block of Namakkal district, the project area, is a distinct geographic and agroecological region of the Eastern Ghats, populated by income-poor Scheduled Tribe households.

There had been a rapid decline in minor millet cultivation, and a shift in land use towards more profitable crops such as cassava (tapioca), pineapple, coffee, and pepper. As the Indian Council of Agricultural Research (ICAR) has pointed out, the area under nutri-cereals has declined steeply in India since the mid-1980s—from 41 million hectares in the 1980s to 24 million hectares in 2017-18.

Reason →

The reasons for a shift in land use include low yields. Further, processing of millets is a time-consuming and laborious task, undertaken by women. Additionally, very little was marketed, and a tiny share of grain was processed into value-added products.

The project intervened in three areas. First, yield enhancement was attempted, using a combination of participatory varietal trials for improved seeds, new agronomic practices, and new technology. Community seed banks were designed and constructed to conserve, restore, revive, strengthen and improve local seed systems.

Second, customized post-harvest machineries (pulverizers and dehullers) were introduced. The introduction of small-scale localized mechanical milling, operated by self-help groups, was a game-changer.

The third major initiative was training. The Kolli Hills Agrobiodiversity Conservers' Federation (KHABCOFED) was formed to oversee all activities relating to training and value-addition. Ready-to-cook products were branded under the Kolli Hills Natural Foods label and market links established. Net returns from value-added products were five to ten times higher than those from grains.

Yields have risen as a result of improved seeds, agronomic practices and intercropping. There have been significant improvements in incomes from millet farming. The shift from hand-pounding to milling has reduced the drudgery for women and encouraged millet consumption. The number of private mills with customized dehullers and pulverizers has risen (and the technology has been marketed to Krishi Vigyan Kendras across Tamil Nadu).

6. What does "agroecological region of the Eastern Ghats" mean in the passage?

- (a) Area marked by excessive agricultural yield ✗
- (b) Area suitable for developing tourism ✗
- (c) Area with pollution-free characteristics ✗
- ✓ (d) Area meant for sustainable farming that works in tandem with nature

7. There has been a rapid decline in minor millet cultivation because

- (a) the millet crop requires special manures to grow
- (b) the land of Namakkal district is not suitable for growing millet
- ✓ (c) there has been shift towards growing more profitable crops
- (d) the land is declared as not climate-resilient for the production of millet

8. What does "a tiny share of grain was processed into value-added products" mean in the passage?

- ✓ (a) Enough was not done for the marketing of millet as a diverse food product.
- (b) A small quantity of millet is used with other grains.

(c) The demand for millet is not very encouraging ✗

(d) Millet does not have potential health benefits. ✗

9. "The introduction of small-scale localized mechanical milling, operated by self-help groups, was a game-changer." What does it mean in the passage?

(a) Machinery for processing millets is not advanced enough. ✗

✓ (b) Self-help groups are active in improving machinery for various crops.

(c) The use of improvised local machines for removing husk from millets has been a turning point for millet farming. ✗

(d) The process of milling the millets is at a small scale.

10. Millet yield has increased because

✓ (a) sustainable farming practices are being followed

(b) farmers are exporting millet ✗

(c) more labour is employed for farming ✗

(d) easy bank loans are available now ✗

Directions : Given below are **five** items, comprising sentences in which one word has been underlined. Choose the response (a), (b), (c) or (d) which is closest to the meaning of the underlined word and mark your response in the Answer Sheet accordingly.

11. The essay was badly researched and contained several platitudes and generalizations.

(a) Incorrect statements

(b) Imprecise comments

(c) Often used and unoriginal ideas

(d) Vague, subjective statements

12. The judgment of beauty is based on the human capacity for disinterested pleasure in the natural world.

(a) Indifference

(b) Free of all self-interest

(c) Not caring for something

(d) Extremely focused

13. The hundred-year old college building was now in a derelict state.

(a) Preserved for historical value

(b) Unsafe for occupation

(c) Neglected and broken down

(d) Retaining its original beauty

14. My serendipitous encounter with the man on the bus was to have a profound impact on my life.

(a) Fortunate

(b) Of historical significance

(c) Sudden and abrupt

(d) A chance event

15. Notwithstanding our victory today we must be careful to avoid a feeling of complacency.

(a) Smug and self-satisfied

(b) A defensive attitude

(c) Pride

(d) Feeling of superiority

Directions : Each of the following **five** items in this section consists of a sentence, parts of which have been jumbled. These parts are labelled as P, Q, R and S. Given below each sentence are four sequences, namely (a), (b), (c) and (d). You are required to rearrange the jumbled parts to form the most appropriate sentence and mark your response in the Answer Sheet accordingly.

16. before the judge given that he was clearly innocent was incomprehensible

P

① Q

② R

his decision to plead guilty

S

(a) SQRP

(b) QPSR

(c) QSPR

✓ (d) SRQP

17. when your stated principles it is difficult are at odds with your ground realities

P

Q

R

to practise what you preach

S

(a) PRSQ

(b) SPRQ

(c) QPRS

✓ (d) QSPR

for assistance reach out to their friends and family

R

S

~~(a) QPSR~~

(b) PSRQ

(c) QRPS

(d) RQPS

19. his vengeful by the expression on his face and diabolical nature

P

Q

R

were clearly revealed

S

(a) QSPR

(b) QPRS

(c) PSQR

(d) PRSQ

20. bitter fights between the two rival teams on more than one occasion

P

Q

R

I have witnessed

S

~~(a) SRQP~~

(b) RSPQ

(c) QPRS

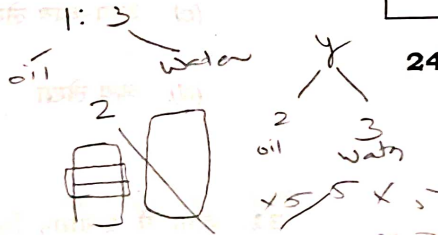
(d) SQRP

21. Article 43 of the Constitution of India enjoins the State to endeavour through legislation or economic organization for payment of which of the following wages?

- (a) Living wage
- (b) Minimum wage
- (c) Fair wage
- (d) Need-based minimum wage

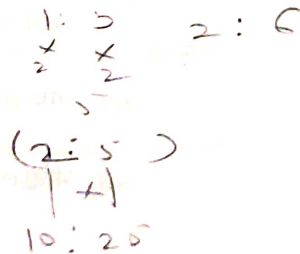
22. Container X contains a mixture of oil and water in the ratio 1:3, whereas container Y contains a mixture of oil and water in the ratio 2:3. If 2 litres of liquid from container X and 5 litres of liquid from container Y are mixed together in container Z that initially contains 1 litre of pure oil, then what is the percentage of oil in container Z?

- (a) 41.25
- (b) 42.75
- (c) 43.75
- (d) 44.25



23. A solid circular metallic disc of radius 12 inches and thickness 4 inches is melted and shaped into a solid disc of radius 16 inches. What is the thickness of the new disc in inches?

- (a) 2
- (b) 2.25
- (c) 2.50
- (d) 2.75



Directions : The next three items are based on the following table which shows the earnings and profits (in rupees thousand crore) of four companies during 2016–2020 :

Year		Company			
		X	Y	Z	W
2016	Earning	100	95	74	50
	Profit	20.5	8.5	7.5	4
2017	Earning	120	94	77	58
	Profit	22.4	9.5	8.8	5.5
2018	Earning	115	92	82	75
	Profit	23.1	7.5	10.5	10.1
2019	Earning	125	90	85	80
	Profit	20.7	5.5	12	12.5
2020	Earning	130	96	89	95
	Profit	25.8	9.5	14	20.5

24. How many of these companies' earnings increased by at least 20% in the year 2020 in comparison to the year 2016?

- (a) 1
- (b) 2
- (c) 3
- (d) 4

25. In 2020, the relative profit jump of which company was maximum over the previous year?

- (a) X
- (b) Y
- (c) Z
- (d) W

26. In 2017, the absolute profit jump of which company was minimum over the previous year?

(a) X

(b) Y

(c) Z

(d) W

27. The value of long-term investment in shares is subject to wide fluctuations. A provision created against fluctuation in value of investments is based on the convention of

(a) conservatism

(b) full disclosure

(c) materiality

(d) consistency

28. Which one of the following aspects is *not* covered in audit?

(a) Examination of the system of accounting and internal control

(b) Preparation of books of accounts

(c) Reporting to the appropriate person/body

(d) Verification of the authenticity and validity of transactions

29. Which of the following sets the scope, timing and direction of the audit, and guides the development of the more detailed audit plan?

(a) Audit program

(b) Overall audit strategy

(c) Completion memorandum

(d) Audit plan

30. Goodwill Account is a/an

(a) Personal Account

(b) Real Account

(c) Nominal Account

(d) Expense Account

31. The principle of subrogation in insurance allows

(a) investment of policy amount

(b) refund for insured and insured's insurance company

(c) auto-renewal of policy

(d) indemnification of the insured

32. Which of the following expenditures are charged to the Consolidated Fund of India?

1. The debt charges for which the Government of India is liable
2. The emoluments and allowances of the President and other expenditure relating to his/her office
3. The salaries, allowances and pensions payable to or in respect of Judges of the Supreme Court ✓
4. The salaries and allowances of the Chairman and the Deputy Chairman of the Rajya Sabha, and the Speaker and the Deputy Speaker of the Lok Sabha ✓

Select the correct answer using the code given below.

(a) 1 and 2 only ✗

(b) 1, 2, 3 and 4

(c) 2, 3 and 4 only ✓

(d) 3 and 4 only ✗

33. Consider the following statements :

1. Population change in an area is an important indicator of economic development of that region.
2. Population change in an area is not an indicator of social upliftment of that region.

Which of the above statements is/are correct?

(a) 1 only

(b) 2 only ✓

(c) Both 1 and 2

(d) Neither 1 nor 2

34. Which one among the following statements regarding 'human development' is not correct? ✓

(a) The basic concept of Income Approach to Human Development is that the level of income reflects the level of freedom an individual enjoys.

(b) Basic Needs Approach to Human Development was initially proposed by the International Labour Organization (ILO). ✗

(c) Human Poverty Index measures the shortfall in human development.

(d) Under the Welfare Approach to Human Development, the Government protects and promotes private entrepreneurs to maximize expenditure on welfare.

35. Which of the following statements about globalization is/are correct?

1. It has fuelled the spread of trans-border currencies, digital cash and global credit cards.
2. Securities markets have gained a global dimension with the development of electronic round-the-world trading.

Select the correct answer using the code given below.

(a) 1 only

(b) 2 only

(c) Both 1 and 2 ✓

(d) Neither 1 nor 2

36. As per FAOSTAT (Food and Agriculture Organization Corporate Statistical Database), which of the following is/are correct about India's milk production?

1. India ranked second in the world in milk production in the year 2021-22.
2. India contributed 24% of global milk production in the year 2021-22.

Select the correct answer using the code given below.

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

37. Which one of the following statements about the Group of Twenty (G20) is **not** correct?

- (a) It was founded in 1999.
(b) The G20 summit is held annually under the leadership of a rotating Presidency.
(c) The G20 members represent around 85% of the global GDP.
(d) The G20 comprises twenty countries.

38. The Nobel Prize in Chemistry for the year 2022 was awarded for

- (a) CRISPR/Cas9 genetic scissors
(b) click chemistry and bioorthogonal chemistry
(c) lithium-ion batteries
(d) palaeogenomics

39. Which of the following statements about a 'unicorn' is/are correct?

1. In the venture capital industry, the term 'unicorn' refers to any startup that reaches the valuation of \$10 billion.
2. Only a privately held startup can be a unicorn.

Select the correct answer using the code given below.

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

40. Which of the following statements about Santosh Trophy Tournament, 2023 is/are correct?

1. The final match was played in Riyadh.
2. The final match was played between Karnataka and Meghalaya.

Select the correct answer using the code given below.

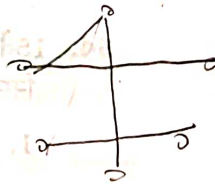
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

... the remaining is for a capital expenditure?

- (a) ₹ 5,000 spent to remove a worn-out part. This part needs to be replaced with a new engine
- (b) Expenses on foreign tour for purchasing a new machine
- (c) Freight and insurance of the machinery purchased
- (d) Amount spent on repairing a secondhand machine before put to use

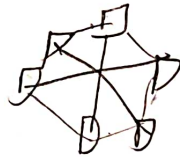
42. Which one of the following is **not** a correct IP address?

- (a) 201.54.122.107
- (b) 102.45.221.710
- (c) 102.45.201.22
- (d) 250.234.123.124



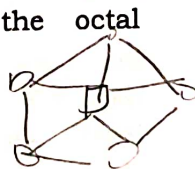
43. In mesh topology, if we have six computers, how many links must be there?

- (a) 6
- (b) 12
- (c) 13
- (d) 15



44. The binary equivalent of the octal number 473 is

- (a) 100111011
- (b) 100111111
- (c) 110111011
- (d) 110001011



45. Which one among the following commands is used to check the error status of hard disk drive?

- (a) CHKDK
- (b) CHECKDISK
- (c) CHKDSK
- (d) DSKCHK

46. Which one of the following registers contains the address of the next location in the memory to be accessed?

- (a) IR
- (b) MAR
- (c) MBR
- (d) DR

47. The effluents of which among the following industries are considered to be the main cause for lowering the pH value of river water?

- (a) Alcohol distillery industries
- (b) Plastic cup manufacturing industries
- (c) Soap and detergent industries
- (d) Lead battery manufacturing industries

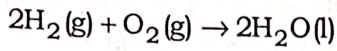
48. Which one of the following is **not** a soap?

- (a) Sodium stearate
- (b) Sodium palmate
- (c) Sodium benzoate
- (d) Sodium oleate

49. The human eyeball is composed of three layers. The correct sequence of the layers from exterior to interior is

- (a) Sclera → Choroid → Retina
- (b) Cornea → Choroid → Retina
- (c) Cornea → Sclera → Choroid
- (d) Sclera → Cornea → Choroid

50. Consider the following reaction :



Which one of the following statements about the reaction given above is correct?

- (a) The oxidation state of hydrogen increases while that of oxygen decreases.
- (b) The oxidation state of hydrogen decreases while that of oxygen increases.
- (c) There is no change in the oxidation state of hydrogen as well as that of oxygen.
- (d) During the reaction, hydrogen is reduced while oxygen is oxidized.

51. The pillar-like structures which hang vertically downward from the aerial branches found in banyan tree are known as

- (a) tap roots
- (b) climbing roots
- (c) fibrous roots
- (d) prop roots

52. Which of the following was/were recommended by the Thungon Committee in respect of 'local governments' in India?

- 1. Constitutional status
- 2. Three-year term

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

53. 'eSanjeevani', a scheme of the Government of India, serves which one among the following objectives?

- (a) Creates a database of people affected by COVID-19
- (b) Promotes the use of telemedicine
- (c) Establishes an electronic National Clinical Registry
- (d) Efficient promotion of health advisories

54. Which of the following statements about recommendations of the 15th Finance Commission is/are correct?

- 1. Basic (untied) grants can be used by rural local bodies for location-specific felt needs under the 29 subjects enshrined in the Eleventh Schedule of the Constitution of India except for salaries and other establishment costs.
- 2. Tied grants can be used for basic services of sanitation and maintenance of ODF status, management and treatment of household waste and human excreta.
- 3. It recommended 'Health Grants' to create diagnostic infrastructure in primary health care facilities.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

55. Which of the following statements about the functions of the State Finance Commission is/are correct?

1. It reviews the financial position of the local governments in the State.
2. It reviews the distribution of revenue between rural and urban local governments.

Select the correct answer using the code given below.

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

56. CAMPA fund is regulated by which one of the following Ministries?

- (a) The Ministry of Home Affairs
(b) The Ministry of Agriculture and Farmers Welfare
(c) The Ministry of Environment, Forest and Climate Change
(d) The Ministry of Defence

57. An employee working in an establishment draws a monthly wage of ₹ 9,000 as fixed under the Minimum Wages Act, 1948 and is eligible to get bonus under the Payment of Bonus Act, 1965 for the accounting year 2021-22. The bonus payable is at the rate of 10%. If the employee has worked continuously for whole of the said accounting year, then what is the amount of bonus that shall be paid to the employee?

- (a) ₹ 7,000
(b) ₹ 8,400
(c) ₹ 10,000
(d) ₹ 10,800

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$$\begin{array}{r} 9000 \\ \times 12 \\ \hline 108000 \end{array}$$

58. Which one of the following statements relating to conclusion of conciliation proceedings under the Industrial Disputes Act, 1947 is **not** correct?

- (a) It is concluded on the date when a memorandum of settlement is signed by the parties.
(b) It is concluded on the date when it ends in failure resulting in no memorandum of settlement signed between the parties.
(c) It is concluded on the date when the report of the Conciliation Officer is received by the Appropriate Government when no settlement is arrived.
(d) It is concluded on the date when the reference is made by the Appropriate Government to the Labour Court/Industrial Tribunal under Section 10 of the Act during pendency of the conciliation proceedings.

59. The provision for disability compensations for the person, who is declared unfit after medical examination and for whom no alternate employment is possible, finds place under which one of the following legislations?

- (a) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996
(b) The Factories Act, 1948
(c) The Mines Act, 1952
(d) The Plantations Labour Act, 1951

60. Which one of the following Articles of the Constitution of India prohibits employment of children in factory or mine or any other hazardous employment?

- (a) Article 19
(b) Article 21
(c) Article 23
(d) Article 24

61. The insurance claim received on account of machinery damaged completely by fire is

- (a) capital receipt
- (b) revenue receipt
- (c) capital expenditure
- (d) revenue expenditure

62. According to the Accounting Standard-1, which of the following are the fundamental accounting assumptions?

- (a) Going Concern, Consistency, Accrual
- (b) Going Concern, Money Measurement, Conservatism
- (c) Going Concern, Consistency, Conservatism
- (d) Going Concern, Accounting Period, Accrual

63. Which of the following errors is **not** detected by Trial Balance?

- (a) A credit purchase of ₹ 1,000 from Mr. Singh is credited wrongly to the account of Mr. Akash
- (b) A credit purchase of ₹ 20,000 from Mr. Sandhu is recorded in the day book as ₹ 2,000
- (c) Conversion of a temporary shed into a permanent building is recorded as repairs and maintenance expense
- (d) Error in posting from the book of subsidiary record to the ledger

64. Which one of the following statements is correct?

- (a) Capital reserves are normally created out of free or distributable profits.
- (b) Dividend equalization reserve is an example of general reserve.
- (c) General reserve can be used only for some specific purposes.
- (d) 'Provision' is a charge against profit.

65. Which one of the following is **not** an error of commission?

- (a) Overcasting of sales book
- (b) Credit sales to Ramesh ₹ 5,000 credited to his account
- (c) Wrong balancing of machinery account
- (d) Cash sales not recorded in cash book

66. Which of the following operators connects a structure variable and its element?

- (a) Dot operator
- (b) Plus operator
- (c) Minus operator
- (d) Multiply operator

67. Which of the following is **not** a top-down language?

- (a) C
- (b) FORTRAN
- (c) JAVA
- (d) Pascal

68. Which one of the following attributes is required for internal linking in HTML?

- (a) Name
- (b) Align
- (c) Body
- (d) Link

69. Which one of the following types of operating systems is designed to respond to an event within a predetermined time?

- (a) Embedded
- (b) Real time
- (c) Multiuser
- (d) Synchronized

70. What is the decimal equivalent of the hexadecimal number 5A6D?

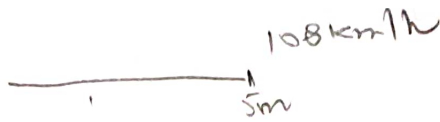
- (a) 23149
- (b) 23148
- (c) 23147
- (d) 13149

71. Two lenses of powers +2.0 D and -2.5 D are combined to make an optical instrument. The combination will

- (a) act as a convex lens
- (b) act as a concave lens
- (c) act as a simple mirror
- (d) not form any image

72. For an inelastic collision between two objects, which one among the following statements is correct?

- (a) The kinetic energy remains conserved, but not the momentum.
- (b) The momentum remains conserved, but not the kinetic energy.
- (c) Both the kinetic energy and the momentum remain conserved.
- (d) Neither the kinetic energy nor the momentum remains conserved.



$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

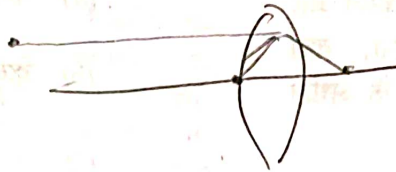
$$s \times T = D$$

$$108 \times 5 = D$$

73. A train starting from rest with a uniform acceleration attains a speed of 108 km/h in 5 minutes. The distance covered by the train in attaining the speed is

- (a) 9000 m
- (b) 4500 m
- (c) 355 m
- (d) 108 m

$$s \times T = D$$



74. An object is placed in front of a concave mirror at infinity. Which one of the following is correct for its image?

- (a) A real and inverted image would be formed at the focal point.
- (b) A virtual and inverted image would be formed at the focal point.
- (c) A real and erect image would be formed at infinity.
- (d) A virtual and erect image would be formed at the focal point.

75. The main cause of ocean acidification is

- (a) carbon dioxide
- (b) carbon monoxide
- (c) hydrogen sulfide
- (d) chlorofluorocarbon

76. Which of the following statements regarding the Ordinance-making power of the Governor is/are **not** correct?

- 1. It is a discretionary power and does not entail the advice of the Ministers. ~~X~~
- 2. The Ordinance-making power of the Governor is confined to subjects in all the three Lists of Schedule VII.
- 3. With regard to repugnancy with a Union Law relating to the concurrent subjects, the Governor's Ordinance will prevail notwithstanding repugnancy, if the Ordinance had been made in pursuance of 'instructions' of the President of India.

Select the correct answer using the code given below.

- (a) 1 and 2 only
- (b) 1, 2 and 3
- (c) 2 and 3 only
- (d) 3 only

77. Which of the following statements about curative petition is/are correct?

- 1. It can be entertained by the Supreme Court of India only.
- 2. It can be entertained by the Supreme Court of India and the High Courts of India.
- 3. Certification by a Senior Advocate is necessary to file a curative petition.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 3 only
- (c) 2 and 3
- (d) 1 and 3

78. Consider the following statements :

1. The Department of Economic Affairs is a nodal agency of the Government of India to formulate and monitor the country's economic policies and programmes that have a bearing on the domestic and international aspects of economic management.
2. The principal responsibility of the Department of Economic Affairs is the preparation and presentation of the Union Budget (including the Railway Budget) before the Parliament, and the Budgets for Union Territories and States under the President's Rule.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

79. Which of the following statements regarding the District Planning Committee and Metropolitan Planning Committee is/are correct?

1. In case of the District Planning Committee, at least $\frac{4}{5}$ th of the members shall be elected by the elected members of the district level Panchayat and of the Municipalities in the district from amongst themselves. Their proportion would be in accordance with the ratio of urban to rural population of the district.

2. In case of the Metropolitan Planning Committee, at least $\frac{2}{3}$ rd of the members of the committee shall be elected by the elected members of the Municipalities and the Chairpersons of the Panchayats in the Metropolitan area from amongst themselves. The proportion of the seats to be shared by them would be based on the ratio of the population of the Municipalities and of the Panchayats in the area.

Select the correct answer using the code given below.

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

80. Which of the following are the major objectives of setting up of Biotechnology Industry Research Assistance Council (BIRAC)?

1. To foster innovations and entrepreneurship
2. To promote affordable innovations in key social sectors
3. To empower startups and small and medium enterprises
4. To encourage young investigators for entrepreneurial and managerial development in SMEs in biotechnology

Select the correct answer using the code given below.

- (a) 1, 2 and 3 only
(b) 1 and 4 only
(c) 2, 3 and 4 only
(d) 1, 2, 3 and 4

81. Which one among the following observations pertaining to the works of Nineteenth-Twentieth Century archaeologists is **not** correct?

(a) Alexander Cunningham, the first Director-General of the Archaeological Survey of India, was of the view that the history of India began with the origins of the Indus Valley Civilization.

(b) John Marshall generally adopted the method of excavation along regular horizontal units and ignored the stratigraphy of the site.

(c) R. E. M. Wheeler first recognized the necessity to follow the stratigraphy of the mound rather than dig along horizontal lines.

(d) Amalananda Ghosh was the first to identify similarities between pre-Harappan and mature-Harappan cultures.

82. Which one of the following was an important contributing factor in the rise of Magadha as the most powerful Mahajanapada between the Sixth and the Fourth Centuries BCE?

~~(a)~~ Easy access to rich gold mines

(b) Superior cavalry

(c) An agriculturally productive region

(d) Republican system of governance

83. Which one among the following statements about the Kailashanatha temple at Ellora is **not** correct?

(a) The temple was carved out of rocks in the Eighth Century CE.

~~(b)~~ The temple is dedicated to Lord Shiva.

(c) The superstructure of the temple corresponds to the Nagara style.

(d) The temple has both Shaiva and Vaishnava sculptures.

84. Which one of the following statements about ancient Indian pottery is correct?

(a) Northern Black Polished Ware (NBPW) refers to a type of pottery found from archaeological sites in India dating back to 600 BCE.

(b) Painted Grey Ware (PGW) refers to a type of pottery found over a large part of South India coinciding with the Sangam period.

~~(c)~~ Ochre Coloured Pottery (OCP) sites are located in South India only.

(d) Black-and-Red Ware (BRW) is never found at Neolithic sites.

85. Which one of the following pairs is **not** correctly matched?

- | (Ancient Text/Term) | (Meaning) |
|----------------------------|--|
| (a) Samarangana-Sutradhara | : A scientific work on ancient Indian architecture |
| (b) Harmika | : A style of temple architecture that originated under the Chola Kings |
| (c) Vimana | : A striking feature of the Dravidian style of temples |
| (d) Kutagarashala | : A hut with a pointed roof where travelling mendicants halted |

86. What is the time limit prescribed under the provisions of the Employees' Compensation Act, 1923 from the date of reference within which the Commissioner is required to dispose of the matter relating to compensation and intimate the decision to the employee?

- (a) Six months
- (b) One year
- (c) Two months
- (d) Three months

87. What is the minimum number of employees employed by an establishment functioning without the aid of power and is registered under the Cooperative Societies Act, 1912 that shall require it to come within the purview of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952?

- (a) Fifty
- (b) One hundred
- (c) One hundred twenty
- (d) One hundred fifty

88. Any question relating to disablement shall be determined by which one of the following authorities under the Employees' State Insurance Act, 1948?

- (a) The Insurance Medical Practitioner
- (b) The Social Security Officer
- (c) The Medical Board
- (d) The Medical Appeal Tribunal

89. What is the amount of compensation that is to be paid to an employee who is totally and permanently disabled as a result from injury under the provisions of the Employees' Compensation Act, 1923? (Hints : Monthly wages drawn were ₹ 22,500 and relevant factor is 159.80)

- (a) ₹ 14,38,200
- (b) ₹ 23,97,000
- (c) ₹ 21,57,300
- (d) ₹ 7,67,040

90. What is the minimum number of employees required to be working in an establishment, so that the employer, with the authorization of the majority of the employees of the establishment, may apply to the Central Government to authorize the employer to create a separate Provident Fund Account for the employees under the Employees' Provident Funds and Miscellaneous Provisions Act, 1952?

- (a) One hundred
- (b) Three hundred
- (c) Five hundred
- (d) One thousand

91. Following are the Central Federations of Trade Unions of Workers formed in India :

1. Indian National Trade Union Congress (INTUC)
2. All India Trade Union Congress (AITUC)
3. Self-Employed Women's Association (SEWA)
4. United Trade Union Congress (UTUC)
5. Centre of Indian Trade Unions (CITU)
6. Bharatiya Mazdoor Sangh (BMS)

Which one of the following is the correct sequence of their formation from the earliest to the latest?

- (a) 2, 1, 4, 6, 5, 3
- (b) 2, 1, 3, 4, 6, 5
- (c) 1, 2, 5, 4, 3, 6
- (d) 1, 3, 2, 4, 5, 6

92. Which one of the following core conventions adopted by the International Labour Organization (ILO) has **not** been ratified by India?

- (a) The Forced Labour Convention (No. 29)
- (b) The Equal Remuneration Convention (No. 100)
- (c) The Freedom of Association and Protection of the Right to Organize Convention (No. 87)
- (d) The Discrimination (Employment and Occupation) Convention (No. 111)

93. Suppose there are five trade unions, namely A, B, C, D and E functioning in an establishment currently employing 1100 workmen. The membership strength of each union is as follows :

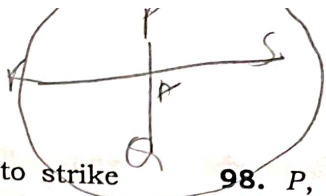
Union A	:	100	✓
Union B	:	370	
Union C	:	110	
Union D	:	275	
Union E	:	80	

Based on the strength of membership, which of the above unions can be registered under the Trade Unions Act, 1926?

- (a) All the unions
- (b) Unions A, B, C and D only
- (c) Unions B, C and D only
- (d) Unions B and D only

94. Registration of trade unions of workers under the Trade Unions Act, 1926 is

- (a) optional
- (b) compulsory
- (c) optional for workers working in non-public utility services
- (d) compulsory for workers working in public utility services



95. The Right of workers to resort to strike is the

- (a) Fundamental Right
- (b) Statutory Right
- (c) Common Law Right
- (d) Equitable Right

96. PQ and RS are chords on a circle centred at O. Suppose A is the point of intersection of PQ and RS. Which of the following statements is/are correct?

1. If A and O coincide, then the four parts of the circle produced by the chords shall always have equal areas.
2. If A and O do not coincide, then two of the four parts of the circle produced by the chords shall always have equal areas.

Select the correct answer using the code given below.

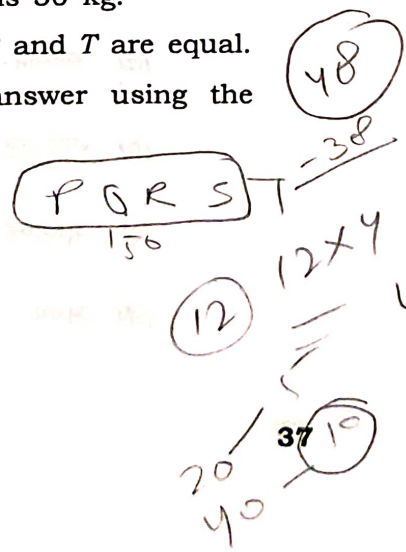
- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

97. P, Q, R, S and T are five friends. The mean of weights of P, Q, R and S is 50 kg, whereas the mean of weights of Q, R, S and T is also 50 kg. Which of the following statements is/are correct?

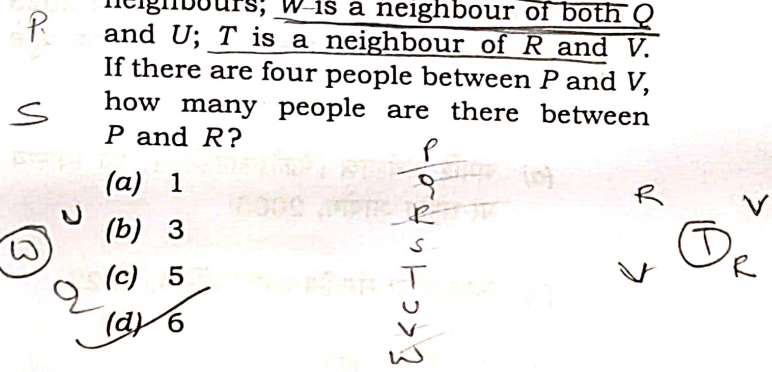
1. The weight of T is 50 kg.
2. The weights of P and T are equal.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2



98. P, Q, R, S, T, U, V and W are sitting in a row facing North. P and S are neighbours; W is a neighbour of both Q and U; T is a neighbour of R and V. If there are four people between P and V, how many people are there between P and R?



- (a) 1
- (b) 3
- (c) 5
- (d) 6

99. The angles of elevation of the top of a tower from the top and bottom of a 10 metres tall building are 30° and 45° respectively. Approximately what is the height of the tower in metres from the top of the building (given that $\sqrt{3} = 1.73$)?

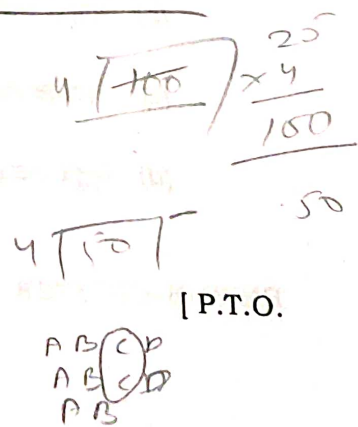
- (a) 10.65
- (b) 13.41
- (c) 13.65
- (d) 15.41

100. A multiple-choice question paper has 50 questions. Each question has got four options, namely A, B, C and D. Each correct answer carries 4 marks and each wrong answer carries -1 mark. A candidate decides to tick in the pattern

A, B, C, D, A, B, C, D, A, B, C, D, ...

and so on starting from Question No. 1, till the end. If option (C) is the correct answer in each question, then what is the total score of the candidate?

- (a) 6
- (b) 8
- (c) 10
- (d) 12



101. Which one of the following recommended that the public health expenditure of the Union and State Governments together should be increased in a progressive manner to reach 2.5 percent of GDP by the year 2025?

(a) The National Commission on Macroeconomics and Health, 2005

(b) The Parliamentary Standing Committee on Health, 2022

(c) The Fifteenth Finance Commission

(d) The Kasturirangan Committee

102. Kautilya in his *Arthashastra* describes the availability of varieties of pearls from the

(a) Madura region hills

(b) Shravanabelagola hills

(c) Tamraparni river in the Pandyan Kingdom

(d) Kaveri river in the Palakkad region

103. Which one of the following pairs of Dynasty and King of the Vijayanagara Empire is *not* correctly matched?

(a) Sangama Dynasty—Harihara II

(b) Saluva Dynasty—Tikka

(c) Aravidu Dynasty—Tirumala

(d) Tuluva Dynasty—Gunda

104. 'Vengi', the capital city of the Eastern Chalukyas, is identified with which one of the following places?

(a) Peddavegi

(b) Erumaiyur

(c) Salihundam

(d) Bhattiprolu

105. Who among the following was the first elected King of the Pala Dynasty in Kamarupa?

(a) Govindapala

(b) Dharmapala

(c) Brahmapala

(d) Jayapala

106. Freedom fighter Agadhu Samantra (Orissa) served the British-Indian Army. Later on he left the British service to join the Indian National Army (INA) in 1942. Where was he deputed by INA as a Naik in the First Bahadur Group?

(a) Andaman-Nicobar

(b) Burma Front

(c) Arunachal Pradesh

(d) Assam

107. Match List-I with List-II and select the correct answer using the code given below the Lists :

- | | |
|--|---------------------------------------|
| List-I
(Central Trade Union Federation) | List-II
(Political Party) |
| A. Centre of Indian Trade Unions | 1. Indian National Congress |
| B. Indian National Trade Union Congress | 2. Bharatiya Janata Party |
| C. Bharatiya Mazdoor Sangh | 3. Communist Party of India |
| D. All India Trade Union Congress | 4. Communist Party of India (Marxist) |

Code :

- | | | | | |
|-----|---|---|---|---|
| (a) | A | B | C | D |
| | 4 | 1 | 2 | 3 |
| (b) | A | B | C | D |
| | 4 | 2 | 1 | 3 |
| (c) | A | B | C | D |
| | 3 | 2 | 1 | 4 |
| (d) | A | B | C | D |
| | 3 | 1 | 2 | 4 |

108. The provision for constituting an 'Expert Committee' finds place under which one among the following legislations?

- (a) The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986
- (b) The Contract Labour (Regulation and Abolition) Act, 1970
- (c) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996
- (d) The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979

109. Which one of the following is provided under the Third Schedule of the Factories Act, 1948?

- (a) List of Occupational Hazards
- (b) List of Occupational Diseases
- (c) List of Notifiable Diseases
- (d) List of Industries Involving Hazardous Processes

110. Under the provisions of the Mines Act, 1952, the Special Officer can enter a mine for the purpose of surveying, levelling and measuring, after giving prior notice to the Manager at least how many days in advance?

- (a) Three days
- (b) Five days
- (c) Seven days
- (d) Fourteen days

111. Under the provisions of the Payment of Wages Act, 1936, every employer of an establishment has to maintain the registers and records regarding the wages paid and deductions made, if any, from the wages, and preserve the same from the date of last entry for a period of

- (a) five years
- (b) seven years
- (c) two years
- (d) three years

112. There are seven hemispherical containers of radius R metres each and each of them is fully filled with water. The water in these is transferred to a hemispherical container of radius equal to 1.5 times of R such that a maximum number of smaller containers get emptied out. How many smaller containers remain fully filled when the larger container gets fully filled?

- (a) 5
- (b) 4
- (c) 3
- (d) 2

113. What is the length of the radius of the circle that passes through the points (0, 0), (0, 3) and (2, 0)?

- (a) $2\sqrt{3}$
- (b) $2\sqrt{5}$
- (c) $\frac{\sqrt{11}}{2}$
- (d) $\frac{\sqrt{13}}{2}$

$2^2 + 3^2 + 2^2 = 17$
 $6 + 11 = 17$

114. Suppose that x and y are distinct variables that take values from {1, 2, 3, 4, 5, 6}. What is the probability that the value of the expression $xy + x + y$ is even?

- (a) $\frac{1}{2}$
- (b) $\frac{1}{3}$
- (c) $\frac{1}{4}$
- (d) $\frac{1}{5}$

$1 \times 2 + 1 + 2 = 5$
 $2 + 1 + 2 = 5$

115. Suppose that $a, b > 0$. If the equation $x^2 + ax + b = 0$ has real roots, namely α and β , then which one of the following is correct?

- (a) $\alpha, \beta > 0$
- (b) If $\alpha > 0$, then $\beta < 0$
- (c) $\alpha, \beta < 0$
- (d) $-1 < \frac{\alpha}{\beta} < 1$

$3 + 4 + 3 + 4 = 14$
 $4 + 5 + 4 + 5 = 18$
 $5 + 6 + 5 + 6 = 22$

116. The ages of Mr. Kumar and his son are in the ratio 5:3. Fifteen years back this ratio was 2:1. What was the age (in years) of Mr. Kumar when his son was born?

- (a) 30
- (b) 35
- (c) 40
- (d) 45

$5:3 = 15$

117. In a business firm, assets of the business are valued on the basis of their intrinsic value rather than realizable value. This accounting is based on

- (a) money measurement concept
- (b) matching concept
- (c) going concern assumption
- (d) consistency principle

1400
 2700
 4100

118. Following is the Trial Balance of a firm as on 31-12-2022 :

	₹	₹
Trade receivables	25,00,000	
Provision for doubtful debts		1,40,000
Bad debts	40,000	

The additional bad debts during the year are ₹2,00,000. The firm has a policy of maintaining a provision for doubtful debts equal to 10% of the trade receivables' balances. The total amount to be charged to Profit and Loss A/c (for the year ending 31-12-2022) for bad debts written off and provision created will be

- (a) ₹2,50,000
- (b) ₹1,30,000
- (c) ₹90,000
- (d) ₹3,30,000

119. Which of the following is **not** a major consideration in the selection and application of accounting policies?

- (a) Prudence
- (b) Consistency
- (c) Substance over form
- (d) Materiality

1400
 8800
 2700
 12900

120. Consider the following information:

Date	Particulars	Units	Rate per unit (in ₹)
Jan. 1	Inventory in hand	200	7
Jan. 8	Purchases	1100	8
Jan. 25	Purchases	300	9
Jan. 6	Issued for sale	100	—
Jan. 9	Issued for sale	200	—

1
 8800
 2700
 11500
 250
 $\times 9$
 2200

Which one of the following is the value of inventory on January 31 under perpetual inventory system using Last-In-First-Out (LIFO) method?

- (a) ₹6,600
- (b) ₹8,600
- (c) ₹10,600
- (d) ₹12,000

200
 7
 1400
 1100
 8
 8800
 1400
 2700
 12900