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**DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO**

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T.B.C. : B-UETC-O-JDW

Test Booklet Series

**TEST BOOKLET**  
**GENERAL ABILITY TEST**



Time Allowed : Two Hours

Maximum Marks : 200

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**INSTRUCTIONS**

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the Answer Sheet liable for rejection.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write *anything else* on the Test Booklet.
4. This Test Booklet contains 120 items (questions), 60 in **PART--A** and 60 in **PART--B**. Each item comprises three/four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. See directions in the Answer Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator *only the Answer Sheet*. You are permitted to take away with you the Test Booklet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong answers :**  
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
  - (i) There are three/four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third** of the marks assigned to that question will be deducted as penalty.
  - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
  - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

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## PART—A

### IDIOMS

**Directions :** Look at the underlined idiom in each sentence. Below each sentence four possible meanings for the idiom have been given as (a), (b), (c) and (d). Select the phrase that most nearly brings out the meaning of the idiom and mark your response appropriately on the Answer Sheet.

1. In his present circumstances, he can just keep the wolf from the door.
  - (a) save his family from the wolf
  - (b) save his family from his cruel enemy
  - (c) keep the wolf as a pet
  - (d) manage to buy enough food for himself and his family
2. Some politicians play to the gallery in order to continue in positions of power.
  - (a) bribe aggressive people
  - (b) play on a musical instrument before people
  - (c) try to win popularity by appealing to the taste of the masses
  - (d) play the tunes which please the masses
3. The Director had to burn the midnight oil to prepare his speech.
  - (a) make his own tea at midnight
  - (b) sit up and work until late at night
  - (c) prepare his supper at midnight
  - (d) make others work until midnight
4. Having decided to elope, she was prepared to face the music.
  - (a) to face difficulties boldly
  - (b) to throw a grand party
  - (c) to pay for a nice musical concert
  - (d) to defy her boss
5. When Govind knew that there were thieves inside his house, he girded up his loins to face them.
  - (a) rolled up his clothes
  - (b) wore a strong belt over his clothes
  - (c) wore a special giridle
  - (d) got ready for action
6. The arguments that you have put forward are neither here nor there.
  - (a) found neither in this book nor in that
  - (b) not to the point
  - (c) not too bad
  - (d) extremely good

## SELECTING WORDS

**Directions :** In the following passage, at certain points you are given a choice of three words marked (a), (b) and (c), one of which fits the meaning of the passage. Choose the best word out of the three. Mark the letter, viz., (a), (b) or (c), relating to this word on your Answer Sheet. Examples K and L have been solved for you.

The **K.** (a) boy was in the school in Simla. **L.** (a) She was homesick.

(b) horse

(b) It

(c) dog

(c) He

**Explanation :** Out of the list given in item K, only 'boy' is the correct answer because usually, a boy, and not a horse or a dog, attends school. So (a) is to be marked on the Answer Sheet for item K. A boy is usually referred to as 'he', so for item L, (c) is the correct answer. Notice that to solve the first item K, you have to read the rest of the sentence and then see what fits best.

### PASSAGE

As a matter of fact, the people of China had invented printing more than fifteen hundred years ago, but printing was not known outside China. The Chinese people also found out how to

7. (a) produce paper at about the same

8. (a) year, or perhaps a little

(b) make

(b) period,

(c) roll

(c) time,

earlier. The

9. (a) Chinese

printed their books by writing

10. (a) over a large piece

(b) Japanese

(b) in

(c) Europeans

(c) on

of stone or

11. (a) leaf with a sharp pen, spreading

12. (a) ink on the block of

(b) wood

(b) tar

(c) slate

(c) paste

stone (or wood) and 13. (a) throwing it against a piece of 14. (a) cloth or paper.

(b) dashing

(b) wood

(c) pressing

(c) stone

In this way, they 15. (a) are able to print a whole 16. (a) page of a book

(b) were

(b) line

(c) been

(c) paragraph

at one 17. (a) instant, and could make hundreds of 18. (a) sheets from one

(b) moment,

(b) lines

(c) time,

(c) copies

block. But the block 19. (a) had to be thrown away after the 20. (a) line had been

(b) was

(b) book

(c) is

(c) cloth

printed; when a 21. (a) different book was to be printed a 22. (a) new block had

(b) same

(b) nice

(c) typical

(c) neat

to be made for 23. (a) each page.

(b) single

(c) new

## SENTENCE IMPROVEMENT

**Directions :** Look at the underlined part of each sentence. Below each sentence are given three possible substitutions for the underlined part as (a), (b) and (c). If one of them is better than the underlined part, mark your response as (a), (b) or (c), as the case may be, on the Answer Sheet. If none of the substitutions improves the sentence, mark (d) (which stands for NO IMPROVEMENT) on your Answer Sheet.

24. His bad temper makes difficult life for the entire family.  
(a) difficulty of life  
(b) life difficult  
(c) impossible life  
(d) NO IMPROVEMENT
25. I hope you will do me the honour of paying me the visit.  
(a) paying me a visit  
(b) paying me the visits  
(c) paying me visits  
(d) NO IMPROVEMENT
26. The river has overflown its banks.  
(a) overflow  
(b) overdone  
(c) overflowed  
(d) NO IMPROVEMENT
27. The Minister has proposed for different approaches for solving the problem of poverty.  
(a) has proposed about different approaches  
(b) suggested about various approaches  
(c) has proposed different approaches  
(d) NO IMPROVEMENT
28. Three years ago we had less members of staff in our college than now.  
(a) had fewer members of staff  
(b) had not so many members of staff  
(c) had lesser members of staff  
(d) NO IMPROVEMENT
29. The sun is rising in the east.  
(a) has been rising  
(b) rises  
(c) was rising  
(d) NO IMPROVEMENT
30. "All the boys and girls in the class must stand to attention when the National Anthem is sung", said the teacher.  
(a) Each boy and girl  
(b) Any boy and girl  
(c) Boy and girl  
(d) NO IMPROVEMENT

## SYNONYMS

**Directions :** Each item in this section consists of a word, underlined word/words in a statement or a phrase followed by four words or phrases as (a), (b), (c) and (d). Select the word/words or phrase which is/are most nearly the same in meaning as the original one and mark your response as (a), (b), (c) or (d), as the case may be, in your Answer Sheet.

**31. Status**

- (a) composition
- (b) regulation
- (c) position
- (d) situation

**32. Attain**

- (a) attend
- (b) achieve
- (c) maintain
- (d) obtain

**33. Transform**

- (a) change
- (b) transfer
- (c) continue
- (d) transact

**34. Heroic**

- (a) heinous
- (b) hypnotic
- (c) valiant
- (d) villainous

**35. Dispute**

- (a) deflect
- (b) disagreement
- (c) defy
- (d) deify

**36. The factory turns out thirty new cars every day.**

- (a) accepts
- (b) produces
- (c) paints
- (d) sells

**37. The newly constructed bridge has given way.**

- (a) opened to traffic
- (b) inaugurated
- (c) declared dangerous
- (d) collapsed

38. There is evidently no trouble.

- (a) obviously
- (b) with evidence
- (c) absolutely
- (d) nearly

39. All are requested to abide by the resolutions passed in the meeting.

- (a) to put up with
- (b) to stick to
- (c) to comply with
- (d) to bear with

40. To resolve to do something

- (a) to promise to do something
- (b) to try again to solve some problem
- (c) to refuse to do something
- (d) to decide to do something

41. A man who speaks several languages

- (a) bilingual
- (b) multilingual
- (c) methodical
- (d) candid speaker

42. A man who goes on a journey to holy places

- (a) traveller
- (b) saint
- (c) pilgrim
- (d) tourist

43. A government of the people

- (a) anarchy
- (b) dictatorship
- (c) monarchy
- (d) democracy

44. The mass of air surrounding the earth

- (a) atmosphere
- (b) hydrosphere
- (c) pressure
- (d) lithosphere

45. The life history of a man written by himself

- (a) biography
- (b) autobiography
- (c) fiction
- (d) history

## MEANINGS

**Directions :** In the following five items, a word or phrase is underlined in each sentence. Four choices are given below each sentence. Select the one which best matches the meaning of the underlined word or phrase and mark your response as (a), (b), (c) or (d), as the case may be, in your Answer Sheet.

46. When it comes to studies, it is found that most students are callous these days.
- (a) dull
  - (b) indifferent
  - (c) careful
  - (d) negligent
47. In order to avoid accidents, one has to be alert while driving.
- (a) to think quickly
  - (b) to be warned against
  - (c) to be awake
  - (d) to be smart
48. This ridiculous exaggeration was instantly seen through.
- (a) intensification
  - (b) simplification
  - (c) magnification
  - (d) clarification
49. I am afraid I do not know how to allay her doubts.
- (a) make less
  - (b) clear
  - (c) share
  - (d) solve
50. My friend was reluctant to do such a thoughtless thing.
- (a) unenthusiastic
  - (b) unwise
  - (c) undecided
  - (d) unwilling



## ANTONYMS

**Directions :** Each of the five items in this section consists of a word or group of words followed by four words as (a), (b), (c) and (d). Select the word which is nearly opposite to the meaning of the original word or group of words and mark your response as (a), (b), (c) or (d), as the case may be, in your Answer Sheet.

**51. Assets**

- (a) liabilities
- (b) responsibilities
- (c) estates
- (d) profits

**52. Convict**

- (a) charge                      (b) defence
- (c) acquit                      (d) punish

**53. Pride**

- (a) esteem                      (b) submission
- (c) humility                      (d) courtesy

**54. Get over**

- (a) succumb                      (b) overcome
- (c) succeed                      (d) outgrow

**55. Tranquil**

- (a) peaceful                      (b) solitude
- (c) agitated                      (d) quiet

## FILL IN THE BLANKS

**Directions :** In the following five items, select the most appropriate word to complete the given sentences and mark your response as (a), (b), (c) or (d), as the case may be, in your Answer Sheet.

**56.** At last the Principal had to — to the genuine demands of the students.

- (a) accede                      (b) exceed
- (c) except                      (d) accept

**57.** — measures have been taken by the police to control the situation.

- (a) Efficient                      (b) Virtual
- (c) Popular                      (d) Effective

**58.** Shall we dispense — the formalities?

- (a) in                      (b) off
- (c) with                      (d) on

**59.** You can't buy that drug; you can only get it on —.

- (a) order                      (b) demand
- (c) requisition                      (d) prescription

**60.** The weather — for today said there would be dust storms in the north and the west.

- (a) warning                      (b) forecast
- (c) forewarning                      (d) prospect

## PART—B

61. Consider the following statements about 'Rig Veda' :

1. Prayers to Indra to defeat not only the Dasa but also the Arya enemies indicate that there were conflicts among the Aryas too.
2. The word *Rajan* in the 'Rig Veda' is best translated as a chieftain rather than king.

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

62. Which of the following statements are correct with regard to the Comptroller and Auditor General (CAG) of India?

1. The CAG audits all receipts and payments of the Union and State Governments.
2. The CAG acts as the external auditor for Government-owned companies.
3. The CAG can be removed from office in manner similar to the Judge of the Supreme Court of India.
4. The CAG is eligible for further appointments under the Union or State Governments.

Select the correct answer using the code given below.

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

63. Gadgil formula was evolved to distribute

- (a) taxes between the Union and States
- (b) plan assistance among States
- (c) amount of loans to needy States
- (d) grants among special category States

64. Which one among the following is a warm current?

- (a) Labrador
- (b) Oyashio
- (c) California
- (d) Agulhas

65. Progesterone is a hormone necessary for the maintenance of pregnancy. It is produced from

- (a) pituitary
- (b) ovary
- (c) uterus
- (d) kidney

66. Which one among the following Stupas has a carved panel showing Ajatashatru's visit supported by a Prakrit inscription to the Buddha?

- (a) Amaravati
- (b) Bharhut
- (c) Sanchi
- (d) Vaishali

67. The system of Public Interest Litigation has been introduced in India

- (a) through Constitutional Amendment
- (b) by judicial initiative
- (c) by judicial review of Article 32
- (d) by a Parliamentary Act

68. Consider the following statements about India :

1. Male life expectancy at birth is shorter than its female counterpart by 3 years.
2. Female infant mortality is higher than its male counterpart by 3 per 1000 live births.
3. Death rate per thousand varies by about 3 points between 5.4 and 8.5 across States.
4. Current birthrate is above 30 per thousand of population.

Which of the statements given above are correct?

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

69. On which one among the following rivers, Tilaiya dam is constructed?

- (a) Barakar river
- (b) Konar river
- (c) Hooghly river
- (d) Barak river

70. Which one of the following is **not** synthesized in the liver?

- (a) Bile
- (b) Insulin
- (c) Urea
- (d) Glycogen

71. Consider the following statements about women's property from 'Dharmashastra' texts :

1. Women had ownership rights on *Stridhana* which included presents given by parents at the time of marriage and by relatives on other occasions.
2. *Stridhana* was to be passed on from mother to daughter.

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

72. Which of the following statements about the Railway Convention Committee is **not** correct?

- (a) The Minister of Railways and the Minister of Finance are nominated to the Committee
- (b) It consists of 12 members from the Lok Sabha and 6 members from the Rajya Sabha
- (c) The Chairperson of the Committee is elected by the members themselves
- (d) The Committee becomes *functus officio* after presenting its final report

73. Consider the following statements about Union financial operations in India in the previous five years :

1. Total Union expenditure has been in the range of 14-16 percent of GDP.

2. Total non-debt receipts of the Union have been in the range of 9-10 percent of GDP.
3. The borrowings of the Union have been in the range of 7-8 percent of GDP.

Which of the statements given above is/are correct?

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

74. Towering clouds with flattened tops that may produce thunderstorms, high velocity winds and heavy rains are called

- (a) cumulus clouds
- (b) cirrus clouds
- (c) nimbostratus clouds
- (d) cumulonimbus clouds

75. Which of the following is true with reference to concentration in urine?

- (a) Water > Urea > Sodium chloride > Potassium chloride > Ammonia
- (b) Water > Urea > Potassium chloride > Sodium chloride > Ammonia
- (c) Water > Ammonia > Urea > Sodium chloride > Potassium chloride
- (d) Urea > Ammonia > Water > Sodium chloride > Potassium chloride

76. Which one among the following is **not** a part of the *Triratna* (three gems) of Jainism?

- (a) Right conduct
- (b) Right faith
- (c) Right knowledge
- (d) Right livelihood

77. Which of the following statements are true of the Indian Electoral System?

1. The electoral contest is based on the First Past the Post System, which ensures proportionality of representation.
2. The task of 'superintendence, direction and control of elections' has been entrusted by the Constitution to the Election Commission of India.
3. The Parliament of India has the power to make laws for the conduct of elections.
4. There is a bar to interference by Courts in electoral matters and no election to the Parliament and State Legislatures may be questioned except by an election petition.

Select the correct answer using the code given below:

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

78. CENVAT is designed to reimburse the user manufacturer with duty paid on inputs excluding

1. capital goods
2. raw materials
3. motor spirit

Select the correct answer using the code given below.

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

79. Which of the following factors are responsible for the rapid growth of sugar production in South India as compared to North India?

1. Higher productivity of sugarcane
2. Higher sucrose content of sugarcane
3. Lower labour cost
4. Longer crushing period

Select the correct answer using the code given below.

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

80. Digestive processes of which one of the following constituents of food will be hampered if bile is not secreted by the gall bladder?

- (a) Fat
- (b) Protein
- (c) Carbohydrate
- (d) Vitamin

81. Consider the following statements about the early development of railways in India :

1. No planning was done and thought given to make railways lay the foundations of modern industry in India.
2. The railways seriously reduced food supply within the country in times of famine by moving large amounts of food grains to the ports for export.

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

82. Which of the statements given below are **not** true for the Indian Constitution?

1. The Indian Constitution was framed by a Constituent Assembly elected on the basis of universal adult franchise.
2. The Constituent Assembly was also the interim Parliament of India.
3. The Chairman of the Drafting Committee of the Constitution was Dr. B. R. Ambedkar.
4. The Preamble of the Constitution of India, as adopted in 1950, made India a sovereign, socialist, secular, democratic republic.

Select the correct answer using the code given below.

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

83. Which one among the following is the rough division of Indian workforce at present among Agriculture, Industry and Services (in terms of percentage)?

- (a) 60, 15, 25
- (b) 55, 20, 25
- (c) 50, 25, 25
- (d) 45, 35, 20

84. Under which type of natural hazards do blizzards come?

- (a) Atmospheric
- (b) Aquatic
- (c) Terrestrial
- (d) Biological

85. Red-Green colour blindness is a sex-linked recessive trait in humans. If a father and a son are both colour blind but the mother is normal, her genotype must be

- (a)  $X^cX^c$
- (b)  $X^CX^c$
- (c)  $X^CX^C$
- (d)  $X^cY$

86. Which of the following statements about the early railways in India is/are correct?

1. Passenger fares were fixed with the objective of providing comfortable and good travel conditions.
2. Freight rates were low for short distances and very high for long-distance traffic.
3. The railway system of that time was marked by the presence of multiple gauges.

Select the correct answer using the code given below.

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

87. Which of the following statements with regard to the Parliament of India is/are correct?

1. The Parliament consists of the President and two Houses, the Lok Sabha and the Rajya Sabha.
2. The Parliament has 33% of seats reserved for women.
3. Not more than 20 members of the Lok Sabha represent the Union Territories who may be elected in the manner provided by a law of the Parliament.

Select the correct answer using the code given below.

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

88. Unbalanced growth strategy keeps in view

- (a) linkages between industries
- (b) prices across industries
- (c) employment across industries
- (d) contribution of various industries to GDP

89. Which one among the following is a depositional feature formed by river action?

- (a) Yardang
- (b) Inselberg
- (c) Point bar
- (d) Barchan

90. Which one of the following is the correct combination of subcellular structures in order of their relative size found in plant and animal cells?

- (a) Nucleus > Mitochondria > Chloroplast > Chromosomes
- (b) Nucleus > Chromosomes > Mitochondria > Chloroplast
- (c) Chloroplast > Nucleus > Chromosomes > Mitochondria
- (d) Chloroplast > Nucleus > Mitochondria > Chromosomes

91. Which one among the following statements about C 600-300 BC India is **not** correct?

- (a) The vast majority of people lived in villages
- (b) The institution of *Jati* (caste) had not come into existence
- (c) There was strengthening of patriarchal control within the household
- (d) The two competing types of politics were the oligarchies and the monarchies

92. Which of the following statements concerning the Election Commission's Model Code of Conduct is/are **not** correct?

- 1. The Model Code of Conduct has been provided by the Constitution of India.
- 2. The Model Code of Conduct emerged out of a voluntary decision by political parties in 1968 to abide by certain norms of electoral campaign.
- 3. In case of the violation of the Model Code of Conduct, the Supreme Court of India can step in on its own accord.
- 4. The Election Commission of India has the power to regulate electoral competition by enforcing the Model Code of Conduct from the day the dates of the election are announced.

Select the correct answer using the code given below.

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

93. Consider the following statements about special category States in India :

- 1. They are located in hilly tracts.
- 2. They are border States.
- 3. They are relatively under-developed.
- 4. They are located on coasts.

Which of the statements given above are correct?

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

94. Which one among the following statements regarding South India is **not** correct?

- (a) Diurnal range of temperature is less
- (b) Annual range of temperature is less
- (c) Temperature is very high during summer
- (d) Extreme climatic conditions prevail

95. Which among the following can act as 'biological washing powder'?

- (a) Inorganic detergent
- (b) Dehydrogenases
- (c) Protease and lipase
- (d) Sandalwood powder



96. Which one among the following statements about Ashokan edicts is correct?

- (a) The practice of having edicts inscribed on rocks and pillars began soon after his coronation as a king
- (b) The edicts carry no reference to good conduct and social responsibilities
- (c) All ceremonies performed by people are supported by the king in the edicts
- (d) They expect people to exercise restraint, in criticizing sects other than their own

97. Which one among the following Maurya kings was killed by Pushyamitra Sunga bringing an end to Maurya rule?

- (a) Dasharatha
- (b) Brihadratha
- (c) Chandragupta
- (d) Bindusara

98. Which of the following statements are true about the Fundamental Rights provided by the Constitution of India?

- 1. The Right to Vote under Article 326 of the Constitution is a Fundamental Right.
- 2. Under Article 13 of the Constitution, all laws inconsistent with the Fundamental Rights may be declared void, but this provision does not apply to Constitutional Amendments made under Article 368.

3. The Right to Protection, in respect of conviction of offences, lays down that a person accused of an offence cannot be compelled to be witness against himself.

4. No law giving effect to the Directive Principles of State Policy may be declared void on the ground that it is inconsistent with the Fundamental Rights.

Select the correct answer using the code given below.

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

99. Economic and Social Planning is a subject on which

- (a) only the Parliament can make law
- (b) only State Legislatures can make law
- (c) both the Parliament and State Legislatures can make law
- (d) the Parliament can make law with the consent of State Legislatures through resolutions

100. Which one among the following gases is transparent to incoming solar radiation and opaque to outgoing terrestrial radiation?

- (a) Oxygen
- (b) Nitrogen
- (c) Helium
- (d) Carbon dioxide

101. 'Chlorosis' in plants occurs due to deficiency in magnesium. This is due to

- (a) inability of plants to make chlorophyll
- (b) ionic imbalance of chloride
- (c) reduced water absorption through roots
- (d) weakening of stems

102. Consider the following statements about Satavahana Empire in the Deccan :

1. The discovery of early Satavahana coins at Kotalingla and Sangareddy in the Karimnagar district supports the hypothesis of the beginning of their rule in the Eastern Deccan.
2. Naneghat and Nashik inscriptions point to the beginning of their rule in the Western Deccan.

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

103. Ancient Sanskrit and Pali texts refer to a land known as Suvarnadvipa or Suvarnabhumi identified with

- (a) Sri Lanka
- (b) South-East Asia
- (c) Tibet
- (d) North-West of Hindukush

104. Which of the following are **not** correct statements for understanding the concept of Dictatorship of the Proletariat in the Marxist Theory of the State?

1. It denotes a State characterized by the domination of the proletariat which comes to power after overthrowing the capitalist order by a violent revolution.
2. This is final stage in which the 'withering away of the State' occurs.
3. The apparatus of the State is democratic since it is governed by the proletariat and does not apply coercive force.
4. It is the stage where there is a 'complete socialization of the major means of production'.

Select the correct answer using the code given below.

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

105. Which one among the following is the correct order of living organisms from producer to tertiary consumers?

- (a) Grass—Grasshopper  
—Hawk—Lizard
- (b) Grass—Hawk  
—Grasshopper—Lizard
- (c) Grass—Lizard  
—Grasshopper—Hawk
- (d) Grass—Grasshopper  
—Lizard—Hawk

106. Wind plays a role as pollinating agent for the following plants, **except**

- (a) maize
- (b) bamboo
- (c) grass
- (d) onion

107. Which one among the following statements about the temple complexes at Nagarjunakonda is **false**?

- (a) Most of the temples had their entrance to the east
- (b) The walls of the temples were relatively plain
- (c) Stone was the main construction material
- (d) They did not have a uniform architectural plan

108. Consider the following statements about the terra-cotta art of India :

1. A great volume and variety of fine terra-cotta were produced in C 200 BC-300 AD.
2. The terra-cotta plaques of Eastern India show women without any well-defined features and deprived of ornaments.

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

109. Which one among the following is the most widespread and most productive category of soil in North India?

- (a) Alluvial soil
- (b) Laterite soil
- (c) Black soil
- (d) Forest soil

110. Mule is a hybrid of

- (a) male donkey and female horse
- (b) female donkey and male horse
- (c) male stallion and female yak
- (d) male yak and female horse

111. A boy of mass 40 kg climbs on a pipe which can stand a maximum tension of 600 N. In which one of the following cases, the pipe would break? (Mass of the pipe is negligible,  $g = 10 \text{ m s}^{-2}$ )

- (a) The boy climbs up with an acceleration of  $6 \text{ m s}^{-2}$ .
- (b) The boy climbs down with an acceleration of  $4 \text{ m s}^{-2}$ .
- (c) The boy climbs up with a uniform speed of  $5 \text{ m s}^{-1}$ .
- (d) The boy falls down the pipe nearly freely under gravity.

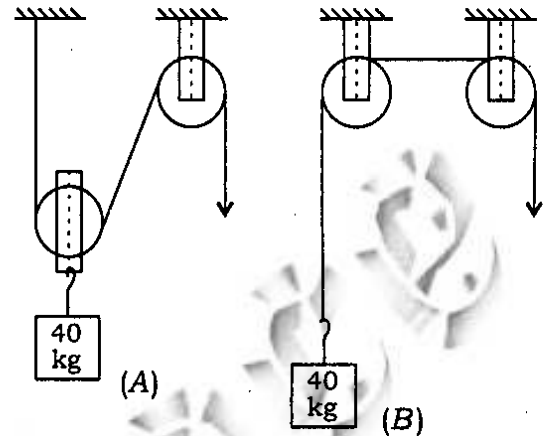
112. Let there be a drilled tunnel through the centre of the earth. What will be the acceleration due to gravity if one falls into it?

- (a) The person will fall with a uniform acceleration of  $9.8 \text{ m s}^{-2}$  till the person reaches the centre of the earth
- (b) The person will fall with an acceleration of  $9.8 \text{ m s}^{-2}$  near the earth's surface and then there will be a gradual slow down of the person's acceleration making zero at the centre of the earth
- (c) The person will fall with a uniform increase in the acceleration due to gravity making it highest at the centre of the earth
- (d) The person will be weightless as he reaches inside the earth surface

113. A single-pulley system is used for lifting a mass upwards. For the system, which one among the following statements is correct?

- (a) If the pulley is fixed, then the force required is equal to the weight of the mass
- (b) If the pulley is fixed, then the force required is equal to half of the weight of the mass
- (c) If the pulley moves with the mass, then the force required is equal to the weight of the mass
- (d) If the pulley moves with the mass, then the force required is equal to double of the weight of the mass

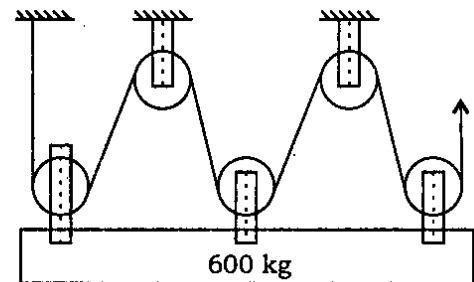
114. Consider the two diagrams given below :



In order to move a mass of 40 kg upwards, we need to apply

- (a) less force for A and more force for B
- (b) no force for A, but some force for B
- (c) no force for B, but some force for A
- (d) equal force for both A and B

115. Consider the following diagram :



Which one among the following is the force required to move the mass of 600 kg upwards? ( $g$  is the acceleration due to gravity)

- (a)  $600 \times g \text{ N}$
- (b)  $300 \times g \text{ N}$
- (c)  $200 \times g \text{ N}$
- (d)  $100 \times g \text{ N}$

116. Find out the missing digits from the following diagram :

$$\text{Sun} + \text{Sun} + \text{Sun} = 36$$

$$\text{Sun} + \text{Circle} = 28$$

$$\text{Circle} - \text{Triangle} = 10$$

$$\text{Sun} + \text{Circle} + \text{Triangle} = ?$$

- (a) 30
- (b) 32
- (c) 34
- (d) 36

117. Consider the following square :

A	B	7
13	37	C
D	E	F

Some numbers are missing in the above square. In order to transform it into a 'Magic Square', the blanks will be filled up by

- |     |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|
|     | A  | B  | C  | D  | E  | F  |
| (a) | 73 | 31 | 43 | 1  | 67 | 61 |
| (b) | 31 | 73 | 61 | 67 | 1  | 43 |
| (c) | 43 | 67 | 1  | 61 | 73 | 31 |
| (d) | 31 | 61 | 43 | 1  | 73 | 67 |

**Directions:** The next three (3) items are based on the following information :

In a stall, 25 magazines were surveyed for advertisements in three categories—cloths, cosmetics and soaps. The research showed :

- 15 magazines had cloths advertisements
- 2 had cloths and soaps advertisements, but no cosmetics advertisements
- 12 had cosmetics advertisements
- 6 had cloths and cosmetics advertisements, but no soaps advertisements
- 11 had soaps advertisements
- 4 had cosmetics and soaps advertisements
- 3 had all three types of advertisements

118. How many magazines had only cloths advertisements, and no soaps or cosmetics advertisements?

- (a) 15
- (b) 2
- (c) 3
- (d) 4

119. From the given findings, how many magazines had only soaps and cosmetics advertisements, but no cloths advertisements?

- (a) 1
- (b) 2
- (c) 3
- (d) 5

120. How many magazines had only cosmetics advertisements without any soaps or cloths advertisements?

- (a) 6
- (b) 2
- (c) 3
- (d) 1

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**SPACE FOR ROUGH WORK**



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