

**PART – I**

**(1) GENERAL ENGLISH**

1. **Directions :** Choose the word most nearly OPPOSITE in meaning to the given word:

FACT

- A. Fiction
- B. Imagination
- C. Reality
- D. Lie

**Direction:** Complete the following sentences by using the correct form of the verb with the help of options that follow:

2. The Headmaster \_\_\_\_\_ to speak to you.

- A. is wanting
- B. was wanting
- C. were wanting
- D. wants

3. He \_\_\_\_\_ for five hours.

- A. has been sleeping
- B. must had been sleeping
- C. was sleeping
- D. had slept

**Direction:** In each of the following sentences improve the underlined part with the help of give n options:

4. I shall have much pleasure in accepting your kind invitation to dinner.

- A. Can't have much pleasure
- B. I am having much pleasure
- C. I may have much pleasure
- D. I have much pleasure

5. No sooner did the police arrived than the robbers made good their escape.

- A. No sooner when the police arrived
- B. No sooner did the police arrive
- C. No sooner the police arrived
- D. No sooner had the police arrived

6. **Directions :** The idiom given below is followed by four possible meanings. Choose the correct option:

By fits and starts

- A. irregularly
- B. successfully
- C. incompletely
- D. suddenly

7. **Directions :** In the following sentence, out of the given alternatives choose the

one which best expresses the meaning of the underlined word:

His performance in the office is quite superficial.

- A. excellent
- B. shallow
- C. excessive
- D. unnatural

8. **Directions :** In the following sentence, one part may have an error. Choose the one which has the error, if any:

It is high time (A)/ that we send(B)/ the answer (C)/ to this query.(D)

- A. (A)
- B. (B)
- C. (C)
- D. (D)

**Direction:** In the following items a word is followed by four explanatory expressions. Choose the expression which best describes the word:

9. ORTHODOX

- A. one who fonts established opinions
- B. one who has no opinions of one's own
- C. one who holds established opinions
- D. one who is sell opinionated

10. EXPLICIT

- A. drawing out a secret from somebody
- B. comparison that is out of place
- C. statement that is absolutely clear
- D. trade prohibited by law

**भाग – I**

**(2) सामान्य हिन्दी**

1. जिस संज्ञा से पदार्थ में पाए जाने वाले किसी धर्म का बोध होता है, उसे क्या कहते हैं?

- A. व्यक्तिवाचक संज्ञा
- B. वस्तुवाचक संज्ञा
- C. भाववाचक संज्ञा
- D. जातिवाचक संज्ञा

2. निम्नलिखित में से कौन-सा युग्म असंगत है?

- A. अन्न - जल
- B. आचार - विचार
- C. पीना - खाना
- D. नोन - तेल

3. 'जलपिपासु' शब्द में कौन-सा समास है?

- A. द्वंद्व
- B. द्विगु
- C. तत्पुरुष
- D. बहुब्रीहि

4. 'एक तो करेला दूजे नीम चढ़ा' - इस लोकोक्ति के सटीक अर्थ को दिए गए विकल्पों में से चयन कीजिए :

- A. करेले की बेल का नीम के वृक्ष पर चढ़ना
- B. करेले और नीम का संयोग स्वास्थ्य के लिए हितकर होना
- C. करेले और नीम का रस मिलाना
- D. एक साथ दो या कई दुर्गुणों का होना

5. 'वाक्यं रसात्मकं काव्यम्' अर्थात् रसात्मक वाक्य ही काव्य है। - काव्यलक्षण के विषय में यह कथन किस आचार्य का है?

- A. भामह
- B. पंडित राज जगन्नाथ
- C. विश्वनाथ
- D. मम्मट

6. निम्नलिखित में से कौन-सा शब्द अर्धतत्सम है?

- A. आखर
- B. अच्छर
- C. अक्षर
- D. अक्ख

7. निम्नलिखित में से 'कामायनी' का काव्य रूप क्या माना जाता है?

- A. खण्डकाव्य
- B. चरित काव्य
- C. एकार्थकाव्य
- D. महाकाव्य

8. 'तपोवन' शब्द में कौन सी संधि है?

- A. विसर्ग संधि
- B. स्वर-व्यंजन संधि
- C. व्यंजन संधि
- D. स्वर संधि

9. खड़ी बोली हिन्दी की किस उपभाषा के अंतर्गत आती है?

- A. बिहारी हिन्दी
- B. पश्चिमी हिन्दी
- C. पहाड़ी हिन्दी
- D. पूर्वी हिन्दी

10. उस मूल ध्वनि को, जिसके खंड न हो सकें - उसे क्या कहते हैं?

- A. शब्द
- B. वर्ण
- C. प्रत्यय
- D. कृदंत

## PART - II

### (1) CURRENT AFFAIRS

1. When was Goods and Services Tax (GST) introduced in India?

- A. February 2017
- B. April 2017
- C. July 2017
- D. January 2017

2. Which of the following gates in the defense wall of Delhi was identified by Ibn-Battuta as the greatest?

- A. Gul Darwaza
- B. Budaun Darwaza
- C. Delhi Darwaza
- D. Mandwi Darwaza

3. Which of the following is the first state in India that has made rooftop rainwater harvesting structure compulsory to all the houses across the State?

- A. Punjab
- B. Tamil Nadu
- C. Kerala
- D. Maharashtra

4. The Chipko movement is associated with which of the following states?

- A. Uttarakhand
- B. Chhattisgarh
- C. Madhya Pradesh
- D. Jharkhand

5. Who is the founder of Grameen Bank of Bangladesh?

- A. Mohammed Yunus
- B. Mohammed Talib

C. S.R. Hashim  
D. Mahabub-ul-Haq

6. Who was awarded with Jnanpith award, 2017?

A. Shiv Mehta  
B. Krishna Sobti  
C. Ramesh Kuntal Megh  
D. Jayantha Mahatab Bora

7. Which one of the following rivers flows across China, India, and Bangladesh?

A. Indus  
B. Ganga  
C. Chang Jiang  
D. Brahmaputra

8. Which one of the following is not the form of precipitation?

A. Sleet  
B. Hail  
C. Absolute humidity  
D. Rainfall

9. Dipa Karmakar won a gold medal in Gymnastics World Challenge Cup at, Mersiw, Turkey on July 8, 2018. In which event, did he win?

A. bar event  
B. vault event  
C. parallel bar exercise  
D. floor exercise

10. Which of the following Country hosted the Asian Games in 2018?

A. China  
B. Indonesia  
C. Japan  
D. South Korea

## PART-II (2) REASONING ABILITY

1. A solid brick of Gold measuring 18 cm × 48 cm × 16 cm is melted and converted into a cubical shape. An edge of this new shape is equal to:

A. 24 cm  
B. 12 cm  
C. 18 cm  
D. 48 cm

2. A man is standing near a clock tower. He moves southwards to reach a point 'P', 8 km from the clock tower. From 'P' he turns right, then moves 6 km to reach a point 'Q'. From 'Q' he moves to right

again and reaches a point 'R', 10 km from 'Q'. From 'R' he turns right and reaches a spot 'S', 6 km from 'R'. How far and in which direction, he is from the clock tower?

A. 2 km South  
B. 2 km North  
C. 18 km South  
D. 4 km South

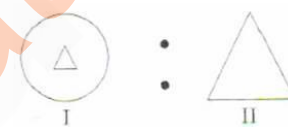
3. Out the following given four words, one is different from the other three. Select the odd one :

A. White  
B. Red  
C. Yellow  
D. Blue

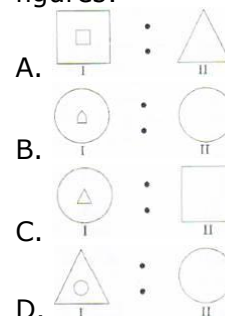
4. Inder is a man and Sahej is a woman. Sahej's mother is daughter of Inder's mother's sister. How is Sahej related to Inder?

A. Sister  
B. Niece  
C. Grand-daughter  
D. Daughter

5.



There is some relationship among the above two figures. Out of the following figures select the set of figures that have a relationship similar to that in the above figures:



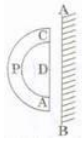
6. Observe the following words carefully: hopeful, helpful, healthy, healing, heating.

If we arrange these words in dictionary order, which one of these will be at the third place?

A. heating  
B. helpful

- C. healthy
- D. healing

7.



Which one of the following is mirror image of the above figure when mirror is placed along the line AB?

- A.
- B.
- C.
- D.

8. A cube of side 8 cm is painted red on all the sides. It is then cut into smaller cubes, each of side 2 cm. How many of these smaller cubes have one or more sides painted red?

- A. 32
- B. 48
- C. 56
- D. 24

9. In a certain code language 'PRINCESS' is written as 'ECINRPTU'. How will you write 'SPICEJET' in the same code language?

- A. EJICSPFV
- B. JECIPSOU
- C. JEICPSGV
- D. JEICPSFV

10. What is related to the numbers '3, 4, 5' in the same way as numbers 1, 2, 3' are related to '1, 4, 9'?

- A. 3, 16, 25
- B. 9, 16, 25
- C. 3, 6, 11
- D. 3, 8, 25

## PART-II

### (3) TEACHING MEHODOLOGY

1. Which of the following are important barriers in the equalisation of educational opportunities?

- (a) Differences in economic states of learner
- (b) Gender disparities
- (c) Common school system
- (d) Differences in the standards of educational institutions

Code:

- A. (a) and (d)
- B. (a), (b) and (c)
- C. (a), (b) and (d)
- D. (a), (b), (c) and (d)

2. Which of the following is not characteristic of the socially and emotionally mature person?

- A. He makes conformity to social expectations his primary goal.
- B. He is relatively free from anxiety and conflict.
- C. He is capable of exercising control in the face of emotional stress.
- D. He has a sense of humour and positive outlook on life.

3. What can not be visualized as a role of the teacher in teaching through problem solving?

- A. Creating the problem situation.
- B. Assist students in perceiving, defining and stating the problem.
- C. Assist students in finding appropriate solution to the problems.
- D. Create fear free atmosphere in the class.

4. The concept of IEP (Individualized Education Plan) is not based on the idea of:

- A. current strengths of the learner
- B. individual goals to be achieved
- C. use of cooperative learning strategy
- D. separating children on the basis of ability grouping

5. What is not a major concern of the school on the development of child's language competence?

- A. Issues related to articulation and literacy
- B. Enhancing vocabulary quantum
- C. Ability to use language and create
- D. To think and communicate with others

6. What type of efforts are needed to be made in learning of Mathematics in early primary years i.e., upto class IV?

- A. Diagnosing learning difficulties

- B. Providing enrichment programmes
- C. Completing the course/competencies
- D. Ensuring regularity in attending the class/school

7. Which of the following is not a mode of Computer Assisted Learning?

- A. Tutorial
- B. Drill and Practice Session
- C. Modelling
- D. Data Interpretation and Drawing Conclusions

8. A school curriculum can be best defined as:

- A. The complete array of the courses of study
- B. All the materials used to further pupils activities
- C. A complete set of organised experiences in the school
- D. Sum total of knowledge to be provided to learners

9. The most important issue of a multi-level situation is:

- A. seeking cooperation amongst students
- B. Class size exceeding 30
- C. Addressing the learning needs of different level students of different grades simultaneously
- D. Arranging appropriate TLM

10. A child takes a favourite book and retells the story' often by using pictures as cues. At what process/stage/component does she/he demonstrates?

- A. Narrative
- B. Syntactic awareness
- C. Emergent reading
- D. Phonological awareness

11. A teacher would become more effective if:

- A. he/she uses good instructional aids.
- B. he/she helps students to ask question.
- C. he/she helps students to achieve mastery learning.
- D. students score high marks.

12. Social maturity is best characterized by:

- A. ability to win friends and influence people
- B. a high level of personal adjustment
- C. a high degree of social competence

D. a high degree of integration of one's needs and purposes with those of the social order

13. Match the two sets. Set - I indicates stages of cognitive development in Piaget's model and Set — II indicates associated characteristics. Select the correct code to represent your answer.

Set-I	Set-II
(a) Sensori-motor	(i) Reversible thinking
(b) Pre-Operational	(ii) Object permanence
(c) Concrete Operational	(iii) Egocentrism
(d) Formal Operational	(iv) Deductive thinking
	(v) Repetitive tasks
	(vi) Intense self Awareness

- A. (a)-(ii) (b)- (iii) (c)- (i) (d)- (iv)
- B. (a)-(v) (b)- (vi) (c)- (ii) (d)- (i)
- C. (a)-(v) (b)- (ii) (c)- (iv) (d)- (vi)
- D. (a)-(ii) (b)- (iii) (c)- (iv) (d)- (i)

14. Which of the following best describes the effect of heredity upon development?

- A. Heredity determines how far we will go
- B. It determines how far we can go
- C. It is the prime determinant of how far we will go
- D. It is the prime determinant of how far we can go

15. Identification of learning gaps of children and plugging them is done through:

- A. Team teaching
- B. Reflective teaching
- C. Remedial teaching
- D. Re-teaching

16. You have administered a test on Mathematics to class V, most of the students failed in it. You have to construct and administer another test. Which test would you prefer?

- A. Summative test
- B. Mastery test
- C. Diagnostic test
- D. Formative test

17. Emotional response to symbolic stimuli is primarily the result of:

- A. maturation
- B. learning

- C. adjustment
- D. increased sensory perception

18. A generalised view or characteristics that ought to be possessed by women and men constitutes:

- A. gender roles
- B. gender identity
- C. gender disparity
- D. gender stereotypes

19. The best way to handle a wrong response of a student would be:

- A. to explain the subject matter in detail again.
- B. to tell the student that your answer is wrong.
- C. to ask another student to give the correct answer.
- D. to explain and give another chance to give answer.

20. Micro teaching is a technique used for:

- A. teaching small sized class
- B. teaching in a simulated condition
- C. preparation of teacher in specific teaching skill
- D. teaching difficult concepts

### Computer Literacy

1. Thesaurus tool in MS-Word is used for:

- A. Spelling suggestions
- B. Synonyms and Antonyms words
- C. Correcting sentences
- D. Grammar options

2. What is common between the following? Facebook, Twitter, Instagram, Pintrest

- A. All are accessible from dark web.
- B. All are social networking sites.
- C. All are news websites.
- D. All are banned websites.

3. Artificial intelligence is the science and engineering for :

- (a) making intelligent machines.
  - (b) making computers think like humans.
- Which of the following is the correct option?

- A. Only (b)
- B. Both (a) and (b)
- C. Neither (a) nor (b)
- D. Only (a)

4. Which of the following font effect is not available in MS- PowerPoint Font dialog box?

- A. Shadow
- B. Strike Through
- C. Underline
- D. Emboss

5. \_\_\_\_\_ and \_\_\_\_\_ are the smallest and largest font size available in Font Size tool on formatting toolbar in MS-Office.

- A. 8 and 72
- B. 12 and 72
- C. 12 and 64
- D. 8 and 64

6. Input devices most commonly used on laptops for routine operations are

- A. Keyboard and Mouse
- B. Keyboard and CD-ROM
- C. Mouse and Pen-drive
- D. Keyboard and Screen

7. Which of the following features is used to apply motion effects in between a slide exits and another enters?

- A. Animation Scheme
- B. Slide Design
- C. Slide Transition
- D. Animation Objects

8. Which of the following are Indian IT companies?

- A. Intel and HCL
- B. HCL and TCS
- C. DELL and TCS
- D. Intel and Wipro

9. Given the following pairs:

- (a) WiFi - Modem
- (b) Chrome - Cable
- (c) File - Hard drive
- (d) Charging - Cable

Which of the above is an odd pair?

- A. (b) only
- B. (c) only
- C. (c) and (d)
- D. (a) only

10. Which of the following option is used to move data from one place to another in a document (MS-Office)?

- A. Paste
- B. Cut
- C. Cut and Paste



D. Copy

**PART-II**  
**Concerned Subject**

1. रचना के अनुसार निम्नलिखित वाक्य का भेद किस विकल्प में दिया गया है?

वाक्य - "लोग तभी गिरते हैं जब असावधान होते हैं।"

- A. सरल
- B. संयुक्त
- C. मिश्र
- D. साधारण

2. भारत में बोली जाने वाली प्रमुख भाषाओं के परिवार किस विकल्प में दिखाए गए हैं?

- A. आर्य, द्रविड, यूरोपीय, अरबी
- B. रोमन, तमिल, देवनागरी, उर्दू
- C. आर्य, आर्यतर, वैदिक, संस्कृत
- D. भारोपीय, आग्नेय, द्रविड, तिब्बत-धर्मी

3. "इस मंदिर में लोग पीतांबर पहनकर पूजा करते हैं"। उपर्युक्त वाक्य में रेखांकित पद में कौन-सा समास है?

- A. द्वंद्व
- B. कर्मधारय
- C. बहुब्रीहि
- D. तत्पुरुष

4. "हमारे वीर सैनिक देश के लिए अपनी \_\_\_\_\_ हैं"।

उपर्युक्त वाक्य में रिक्त स्थान के लिए उपयुक्त मुहावरा होगा :

- A. जान फूँकना
- B. जान निकालना
- C. जान लगाना
- D. जान लेना

5. निम्नलिखित शब्दों की व्याकरणिक कोटियाँ किस विकल्प में ठीक-ठीक प्रदर्शित की गई हैं?

शब्द- सुंदरता अपनाया आप उष्ण

- A. सर्वनाम विशेषण संज्ञा क्रिया
- B. विशेषण संज्ञा क्रिया सर्वनाम
- C. क्रिया सर्वनाम विशेषण संज्ञा

D. संज्ञा क्रिया सर्वनाम विशेषण

6. संस्कृत मूल के जो शब्द उसी रूप में हिन्दी में आ गए हैं, उन्हें क्या कहा जाता है?

- A. तत्सम
- B. तदभव
- C. आगत
- D. अर्ध-तत्सम

7. "प्रतिकूलता" शब्द में प्रयुक्त उपसर्ग और प्रत्यय किस विकल्प में दिए गए हैं?

- A. प्र, लता
- B. प्रति, ता
- C. प्रति, आ
- D. प्र, ता

8. 'दवाई' का बहुवचन है :

- A. दवाईयाँ
- B. दवाईयों
- C. दवाई
- D. दवाईयें

9. श्रीमान् का स्त्रीलिंग रूप है:

- A. श्रीमति
- B. श्रीमती
- C. श्रीमती
- D. श्रीमानी

10. खड़ी बोली हिन्दी में रचना करने वाला प्रथम कवि किसे माना जाता है?

- A. तुलसीदास
- B. अमीर खुसरो
- C. मलिक मुहम्मद जायसी
- D. चंद बरदाई

11. Choose the option which best describes the meaning of the underlined idiom.

She crawled forward inch by inch.

- A. slowly and carelessly
- B. lazily but carefully
- C. quickly but carefully
- D. slowly and carefully

12. Choose the option which best describes the meaning of the underlined phrase in the given sentence.

Who can say who will turn up next?

- A. withdraw
- B. win
- C. arrive
- D. depart

13. Choose from the given options the word similar in meaning to the one given below:

Froth

- A. foam
- B. wave
- C. fruitful
- D. gross

14. Choose the option to fill in the blank with the correct form of the verb.

'Where's my pen?'

'Ram \_\_\_\_\_ it yesterday.'

- A. had lost
- B. lost
- C. has lost
- D. would lose

15. Choose the correct option to fill in the blank in the following sentence.

He rules \_\_\_\_\_ a vast empire.

- A. in
- B. into
- C. over
- D. at

16. Choose the option to fill in the blank in the following sentence with correct form of the verb.

We \_\_\_\_\_ Rani and Shyam for many years.

- A. knows
- B. have known
- C. know
- D. have been knowing

17. Choose the option in which each word in the following table has been correctly matched with its respective part of speech.

**foamy ,flux ,but ,can**

- A. Conjunction Verb Adjective Noun
- B. Adjective Noun Conjunction Verb
- C. Verb Adjective Noun Conjunction
- D. Noun Conjunction Verb Adjective

18. Which form of sentence is the following?

I was offered a chair.

- A. Active
- B. Passive
- C. Interrogative
- D. Imperative

19. Choose the correct option to fill in the blank in the following sentence.

Sita has got \_\_\_\_\_ nice smile.

- A. a
- B. an
- C. the
- D. some

20. Choose from the given options the word nearly opposite in meaning to the one given below:

Popular

- A. raw
- B. notorious
- C. relevant
- D. promoted

21. At time  $t=0$ , a scooter has a velocity of  $21 \text{ ms}^{-1}$ . It slows down with an acceleration of  $50 \text{ cm s}^{-2}$ . At the end of 4 s, the scooter has travelled:

- A. 80 m
- B. 84 m
- C. 100 m
- D. 104 m

22. The correct distribution of electrons in sodium is:

- A. 2, 8, 1
- B. 2, 6, 3
- C. 5, 5, 1
- D. 2, 5, 4

23. Which compound is a saturated acyclic hydrocarbon?

- A. Butane
- B. Benzene
- C. Cyclohexane
- D. Ethene

24. An object covers two consecutive equal distances with speeds  $v_1$  and  $v_2$ . The average speed of the object is:

- A.  $\frac{v_1 + v_2}{2}$
- B.  $\frac{v_1 v_2}{2(v_1 + v_2)}$
- C.  $\frac{v_1 v_2}{v_1 + v_2}$
- D.  $\frac{2v_1 v_2}{v_1 + v_2}$



25. An open jeep is moving on a straight path with a uniform velocity. A person sitting on the front seat projects a ball vertically upwards. After some time the ball:

- A. falls back in his hand.
- B. falls in front of the jeep.
- C. falls on the back seat of the jeep.
- D. falls outside the jeep.

26. An object of mass 40 kg moving along a straight line with a horizontal velocity of  $15 \text{ ms}^{-1}$  collides and sticks to a stationary wooden block of mass 10 kg. If the surface is smooth, the combined object (object and the wooden block) after collision moves along the same straight line with a velocity of:

- A.  $9 \text{ ms}^{-1}$
- B.  $10 \text{ ms}^{-1}$
- C.  $12 \text{ ms}^{-1}$
- D.  $12.5 \text{ ms}^{-1}$

27. An object is covering distance in direct proportion to the square of time elapsed. What conclusion can be drawn about the motion of the object?

- A. The object is moving with zero acceleration.
- B. The acceleration of the object is constant.
- C. The object is moving with increasing acceleration.
- D. The object is moving with decreasing acceleration.

28. The resources of water on the earth are:

- A. Sea/Ocean
- B. Snow on mountain and near poles
- C. Monsoon rain
- D. Ocean, snow and rain, underground water

29. Which one is not a rabi crop?

- A. Mustard
- B. Peas
- C. Black gram
- D. Wheat

30. Which food gives energy instantly?

- A. Food rich in carbohydrates
- B. Food rich in fat
- C. Food rich in vitamins
- D. Food rich in proteins

31. Watt second is the unit of:

- A. energy
- B. force
- C. momentum
- D. power

32. Organ that transports blood to various parts of human body is:

- A. Heart
- B. Kidney
- C. Liver
- D. Lungs

33. An object of mass 10 kg is moving with a velocity of  $5 \text{ ms}^{-1}$ . If the velocity of the object is tripled, the change in kinetic energy of the object is:

- A. 90%
- B. 300%
- C. 800%
- D. 900%

34. The length of the small intestines in the human body is:

- A. 10 m
- B. 2 m
- C. 7.5 m
- D. 1 m

35. Pick out the correct statement.

- A. Burning of fuel is a physical change.
- B.  $\text{CH}_4$ ,  $\text{H}_2\text{O}(\text{g})$ , CFC etc. are not green house gases.
- C. Chlorophyll a green coloured pigment, acts as a catalyst during photosynthesis.
- D. Uranium - 235 is non-radioactive.

36. Consider the following statements in the context of levers of third order:

- (a) In these levers the effort is in between the fulcrum and load (weight).
- (b) The mechanical advantage of this kind of levers is more than one.
- (c) Tweezer and human arm holding weight on the palm are examples of levers of third order.

The correct statement(s) is/are:

- A. Only (a)
- B. (a) and (b)
- C. (b) and (c)
- D. (a) and (c)

37. Which one is wrongly matched?

- A. Mercury - Nearest to the sun
- B. Venus - Hottest planet
- C. Saturn - Planet without rings
- D. Mars - Called red planet

38. An 8 metric ton engine pulls a train of 5 wagons each of 2 metric tons along a horizontal track. If the engine exerts a force of  $3.5 \times 10^4$  N and the track is smooth, then the force exerted by wagon 1 on wagon 2 is:

- A.  $3.5 \times 10^4$  N
- B.  $2.8 \times 10^4$  N
- C.  $1.4 \times 10^4$  N
- D.  $7.0 \times 10^4$  N

39. If the distance time graph of the motion of an object is a straight line but not parallel to the time axis, then it may be concluded that the object is moving with a:

- A. non-zero acceleration
- B. constant acceleration
- C. increasing acceleration
- D. constant velocity

40. Which one is a wrong statement?

- A. Solids and liquids cannot be compressed while gases can be compressed.
- B. Gases spread to occupy space available to them.
- C. Liquids evaporate silently producing cooling effect.
- D. The mass of 0.5 mole of  $N_2$  gas and 0.5 mole of nitrogen atoms are 28 g and 14 g respectively.

41. If 20% of 50% of x is twice the value of 50% of 25% of y, then x is what percent more or less than y?

- A. 100% more
- B. 150% more
- C. 125% less
- D. 250% less

42. In a circle with centre O. chords AB and CD are parallel chords on opposite side of O. If AB = 20 cm. CD = 48 cm and the distance between the chords is 34 cm. then the diameter (in cm) of the circle is:

- A. 26
- B. 39
- C. 42
- D. 52

43. In  $\triangle ABC$ ,  $\angle C = 60^\circ$ ,  $\angle A = 75^\circ$ ,  $AD \perp BC$ , where D is a point on BC,  $BE \perp AC$  at E, where E is a point on AC. AD and BE intersect each other at H. What is the measure of  $\angle CHD$ ?

- A.  $60^\circ$

- B.  $55^\circ$
- C.  $50^\circ$
- D.  $45^\circ$

44. In  $\triangle ABC$ , the sides AB and AC are produced to P and Q, respectively. The bisectors of  $\angle PBC$  and  $\angle QCB$  intersect at a point O. If  $\angle A = 56^\circ$ , then  $\angle BOC$  equals:

- A.  $28^\circ$
- B.  $42^\circ$
- C.  $56^\circ$
- D.  $62^\circ$

45. A solid cube of volume  $46656 \text{ cm}^3$  is cut into 8 cubes of equal volumes. What is the ratio of surface area of the original cube and the total surface areas of the smaller 8 cubes?

- A. 1 : 2
- B. 1 : 3
- C. 2 : 3
- D. 3 : 4

46.  $\left(\frac{81}{16}\right)^{-\frac{3}{4}} \times \left[\left(\frac{25}{9}\right)^{-\frac{3}{2}} + \left(\frac{5}{2}\right)^{-3}\right]$  is simplified to:

- A.  $\frac{1}{2}$
- B. 1
- C.  $\frac{1}{4}$
- D. 4

47. In a quadrilateral ABCD,  $\angle C = 102^\circ$  and  $\angle D = 58^\circ$ . The bisectors of  $\angle A$  and  $\angle B$  meet at P. What is the measure of  $\angle APB$ ?

- A.  $62^\circ$
- B.  $78^\circ$
- C.  $80^\circ$
- D.  $100^\circ$

48. Ram sold an article at 8% gain. Had it been sold for Rs 150 more, the gain would have been 14%. If he had sold it for Rs 2,650, then gain percent would have been:

- A. 4
- B. 5.5
- C. 6
- D. 6.5

49. If the roots of the equation  $(q - r)x^2 + (r - p)x + (p - q) = 0$  are equal, then which of the following is true?

- A.  $p + q = 2r$
- B.  $p + r = 2q$
- C.  $p + q + r = 0$
- D.  $p - q - r = 0$

50. The length, breadth and height of a cuboid are in the ratio 1 : 2 : 3. If its total surface area is  $1100 \text{ cm}^2$ , then its volume (in  $\text{cm}^3$ ) is :

- A.  $750\sqrt{2}$
- B. 750
- C. 1500
- D.  $1500\sqrt{2}$

51. LCM of two numbers is 340 times their HCF. If HCF is 26 and one of the numbers is 442, then the other number is:

- A. 260
- B. 390
- C. 520
- D. 560

52. A sum amounts to Rs 37,632 at the end of two years at 12% per annum compound interest, interest compounded annually. What will be the simple interest on the same sum at the same rate for double the earlier period?

- A. Rs 7,200
- B. Rs 8,000
- C. Rs 14,400
- D. Rs 16,000

53. 'A' alone completes  $\frac{4}{5}$  part of a work in 20 days. The remaining work then completed by 'A' and 'B' working together in 3 days. How long would 'B' alone take to do two times the original work?

- A.  $37\frac{1}{5}$  days
- B. 40 days
- C. 75 days
- D. 80 days

54. Two years ago, Ritu was three times as old as her daughter and two years hence, twice her age will be equal to five times that of her daughter. What is the sum of the present ages of Ritu and her daughter?

- A. 50 years
- B. 54 years
- C. 52 years
- D. 55 years

55. The diameter of the base of a right circular solid cylinder is 14 cm and its volume is  $2002 \text{ cm}^3$ . The total surface

area of the cylinder (in  $\text{cm}^2$ ) is  
(Take  $\pi = \frac{22}{7}$ )

- A. 110
- B. 660
- C. 880
- D. 1320

56. A certain sum is distributed among A, B, C and D in the ratio 3: 4 : 8 : 6 respectively. If the share of C is Rs 2,820, more than that of B, then what is the sum of shares of A and D?

- A. Rs 5,460
- B. Rs 5,640
- C. Rs 3,564
- D. Rs 6,345

57. The ratio between the curved surface area and the total surface area of a right circular cylinder is 2 : 3. What is the ratio of radius and height of the cylinder?

- A. 1 : 2
- B. 2 : 1
- C. 2 : 3
- D. 3 : 2

58. One of the factors of  $x^3 - 3x^2 + 3x - 2$  is:

- A.  $x^2 + x + 1$
- B.  $x^2 - x + 1$
- C.  $x^2 - x - 1$
- D.  $x^2 + x - 1$

59. The measure of an angle for which the measure of the supplement is four times the measure of the complement is:

- A.  $20^\circ$
- B.  $30^\circ$
- C.  $45^\circ$
- D.  $60^\circ$

60. What is the ratio of the area of an equilateral triangle of side 2a units to that of a square, whose diagonal is 2a units?

- A.  $\sqrt{3} : 1$
- B.  $\sqrt{3} : 4$
- C.  $\sqrt{3} : 2$
- D.  $\sqrt{3} : 8$

61. The torrid zone lies between which one of the following latitudes.

- A.  $23\frac{1}{2}^\circ \text{ N}$  and  $23\frac{1}{2}^\circ \text{ S}$
- B.  $23\frac{1}{2}^\circ \text{ N}$  and  $66\frac{1}{2}^\circ \text{ N}$
- C.  $23\frac{1}{2}^\circ \text{ S}$  and  $66\frac{1}{2}^\circ \text{ S}$
- D.  $66\frac{1}{2}^\circ \text{ N}$  and  $66\frac{1}{2}^\circ \text{ S}$

62. According to the Census of India, which one of the following percentages of decadal population growth rate is applicable for India during 2001 - 2011?

- A. 16.64%
- B. 17.64%
- C. 18.25%
- D. 19.34%

63. According to the 2011 census, which one of the following figures shows the population density of India?

- A. 328 persons/sq. km
- B. 375 persons/sq. km
- C. 382 persons/sq. km
- D. 430 persons/sq. km

64. If parallels are drawn/marked at an interval of one degree, how many of them would be in the north hemisphere?

- A. 89
- B. 90
- C. 91
- D. 180

65. Out of the following percentages which one of the following is correct for Nitrogen gas in the atmosphere?

- A. 70%
- B. 72%
- C. 78%
- D. 82%

66. According to the Census of India 2011, which one of the following percentages of the urban population in India is correct?

- A. 25.58%
- B. 28.10%
- C. 30.20%
- D. 31.16%

67. Community lands are called as:

- A. Common property resource
- B. Private property resource
- C. Government property resource
- D. Non-governmental agency resource

68. Which one of the following statements is correct?

- A. In a monarchy, King has absolute power to rule the country.
- B. In a monarchy, people can raise questions about the decisions the monarch takes.
- C. In a democracy, king has absolute power to rule the country.

D. In a democracy, people do not participate in the process of representative's election.

69. Which one of the following is known as standard Meridian for India?

- A. 80°East
- B. 82½° East
- C. 85°East
- D. 87½°East

70. The Ninth Five Year Plan was implemented in the country in which one of the following years.

- A. 1995
- B. 1996
- C. 1997
- D. 1998

71. Which one of the following is known as 'father of the Indian constitution'?

- A. Mohandas Karamchand Gandhi
- B. Bhim Rao Ambedkar
- C. Pandit Jawahar Lai Nehru
- D. Sardar Vallabhbhai Patel

72. Terrace farming is practiced in which one of the following areas?

- A. Hill Slopes
- B. Gentle Plains
- C. Glacial Mountain Peaks
- D. Coastal Lands

73. Transfer of water on earth and its atmosphere includes which one of the following group of elements?

- A. Precipitation, Run-off, Wind, and Temperature
- B. Precipitation, Humidity, Evaporation, and Wind
- C. Evaporation, Condensation, Precipitation, and Run-off
- D. Evaporation, Precipitation, Wind, and Temperature

74. What will be the local time at 80° E when the local time at 20°E is 10:00 am?

- A. 11: 30 am
- B. 1: 30 pm
- C. 2: 00 pm
- D. 2: 30 pm

75. Horsts and Graben are built by which one of the following processes?

- A. Folding
- B. Faulting
- C. Volcanism

D. Glaciation

76. Which one of the following agencies runs the Public Health Care System?

- A. Private Medical Institutions
- B. Governmental Agencies
- C. Non-Governmental Organisations
- D. Medical Practitioners

77. The Secretary of the Gram Sabha is elected/ appointed by:

- A. Members of Gram Sabha
- B. Village-ward members
- C. Members of Gram Panchayat
- D. Government appointee

78. According to the Census of India 2011, which one of the following sex ratios is correct for India?

- A. 910 Females per 1000 Males
- B. 920 Females per 1000 Males

C. 940 Females per 1000 Males

D. 980 Females per 1000 Males

79. Which one of the following Governmental Institutions has the authority to introduce a new train between Delhi and Kanyakumari?

- A. Local government
- B. State government
- C. Central government
- D. Non-governmental organization

80. The farmers cultivating small plots of land using simple tools and more labour in the plains are categorized under which one of the following types of farming?

- A. Primitive subsistence agriculture
- B. Intensive subsistence agriculture
- C. Commercial farming
- D. Shifting cultivation