INSTRUCTIONS FOR CANDIDATES

1. The OMR Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars on Side-1 and Side-2 carefully with blue/black ball point pen only.

2. The test is of 2½ hour duration and consists of 150 questions. There is no negative marking.

3. Use Blue/Black Ball Point Pen only for writing particulars on this page/marking responses in the Answer Sheet.

4. The CODE for this Booklet is E. Make sure that the CODE printed on Side-2 of the Answer Sheet is the same as that on this Booklet. Also ensure that your Test Booklet No. and Answer Sheet No. are the same. In case of discrepancy, the candidate should immediately report the matter to the Invigilator for replacement of both the Test Booklet and the Answer Sheet.

5. This Test Booklet has five Parts, I, II, III, IV and V, consisting of 150 Objective Type Questions, and each carries 1 mark.

Part I: Child Development and Pedagogy (Q. Nos. 1-30)
Part II: Mathematics and Science (Q. Nos. 31-90)
Part III: Social Studies/Science (Q. Nos. 91-120)
Part IV: Language I (English/Hindi) (Q. Nos. 121-150)
Part V: Language II (English/Hindi) (Q. Nos. 121-150)

6. Candidates have to do questions 31 to 90 EITHER from Part II (Mathematics and Science) OR from Part III (Social Studies/Science).

7. Part IV contains 30 questions for Language I and Part V contains 30 questions for Language II. In this Test Booklet, only questions pertaining to English and Hindi language have been given. In case the language(s) you have opted for as Language I and/or Language II is a language other than English or Hindi, please ask for a Test Booklet that contains questions on that language. The languages being answered must tally with the languages opted for in your Application Form.

8. Candidates are required to attempt questions in Part V (Language II) in a language other than the one chosen as Language I (in Part IV) from the list of languages.

9. Rough work should be done only in the OMR Answer Sheet only. Mark your responses carefully. No whitener is allowed for changing answers.

Name of the Candidate (in Capitals): ____________________________

Roll Number (अंकनांक) in figures (अंकों में) ____________________________

Centre of Examination (in Capitals): ____________________________

Candidate's Signature: ____________________________

Invigilator's Signature: ____________________________

Facsimile signature stamp of Centre Superintendent
PART I / भाग I

CHILD DEVELOPMENT AND PEDAGOGY / बाल विकास व शिक्षाशैली

Directions: Answer the following questions by selecting the most appropriate option.

1. Which one of the following statements best summarizes the relationship between development and learning as proposed by Vygotsky?
   (1) Development is independent of learning.
   (2) Development process lags behind the learning process.
   (3) Development is synonymous with learning.
   (4) Learning and development are parallel processes.

2. What is a major criticism of Kohlberg’s theory?
   (1) Kohlberg proposed a theory without any empirical basis.
   (2) Kohlberg proposed that moral reasoning is developmental.
   (3) Kohlberg did not account for cultural differences in moral reasoning of men and women.
   (4) Kohlberg did not give clear cut stages of moral development.

3. In a learner-centred classroom, the teacher would
   (1) encourage children to compete with each other for marks to facilitate learning.
   (2) demonstrate what she expects her students to do and then gives them guidelines to do the same.
   (3) employ such methods in which the learners are encouraged to take initiative for their own learning.
   (4) use lecture method to explain key facts and then assess the learners for their attentiveness.

1. निम्नलिखित कथनों में से कौन-सा वाक्य तथा अधिग्रहण के बीच सम्बन्ध का सबसे निर्देश रूप में सार प्रस्तुत करता है?
   (1) विकास अधिग्रहण से स्वाधीन है।
   (2) विकास-प्रक्रिया अधिग्रहण-प्रक्रिया से पीछे रह जाती है।
   (3) विकास अधिग्रहण का समानार्थक है।
   (4) अधिग्रहण एवं विकास समानार्थक प्रक्रियाएँ हैं।

2. कोहल्बर्ग के सिद्धांत की एक प्रमुख आलोचना क्या है?
   (1) कोहल्बर्ग ने बिना किसी अनुभूतिमुक्त आपात के सिद्धांत प्रस्तुत किया।
   (2) कोहल्बर्ग ने प्रस्ताव किया कि नैतिक तात्त्विकता विकासान्तर है।
   (3) कोहल्बर्ग ने पुरुष एवं महिलाओं की नैतिक तात्त्विकता में सांस्कृतिक विभिन्नताओं को महत्व नहीं दिया।
   (4) कोहल्बर्ग ने नैतिक विकास की सप्त अवस्थाओं का उल्लेख नहीं किया।

3. एक शिक्षाविद्-सम्बन्धित कक्षा-कक्ष में अध्यापिका करेगी?
   (1) अधिग्रहण का सूचारू बनाने के लिए बच्चों को एक दूसरे के साथ अंदाजे के लिए मुकाबला करने हेतु प्रोत्साहित करना।
   (2) वह अपने विद्यार्थियों से जिस प्रकार की अपेक्षा करती है उसे प्रदर्शित करना और तब बच्चों को वैध करने के लिए दिशा-निदेश देना।
   (3) इस प्रकार की पद्धतियों को नियोजित करना जिसमें शिक्षाविद् अपने स्वयं के अधिग्रहण के लिए पहले करने में प्रोत्साहित हो।
   (4) मुख्य तत्वों की व्याख्या करने के लिए व्याख्यान पद्धति का प्रयोग करना और बाद में शिक्षाविद् का उनकी सजगता के लिए आकलन करना।
4. According to Gardner's theory of multiple intelligence, the factor that would contribute most for being a 'self-aware' individual would be

(1) Musical
(2) Spiritual
(3) Linguistic
(4) Intrapersonal

5. A major difference between the perspectives of Vygotsky and Piaget pertains to

(1) their critique of behaviouristic principles.
(2) the role of providing a nurturing environment to children.
(3) their views about language and thought.
(4) their conception of children as active constructors of knowledge.

6. A lot of debate surrounds whether girls and boys have specific sets of abilities due to their genetic materials. Which one of the following are you most likely to agree with in this context?

(1) Girls are socialized to be caring while boys are discouraged to show emotions such as crying.
(2) After puberty boys and girls cannot play with each other since their interests are complete opposites.
(3) All girls have inherent talent for arts while boys are genetically programmed to be better at aggressive sports.
(4) Boys cannot be caring since they are born that way.
7. A teacher wants to ensure that her students are motivated intrinsically. She would
(1) specify uniform standards of achievement for all children.
(2) focus on the processes of learning of individual children rather than on the final outcome.
(3) offer tangible rewards.
(4) plan learning activities which encourage convergent thinking.

8. Failure of a child to perform well in class tests leads us to believe that
(1) assessment is objective and can be used to clearly identify failures.
(2) there is a need to reflect upon the syllabus, pedagogy and assessment processes.
(3) some children are deemed to fail irrespective of how hard the system tries.
(4) children are born with certain capabilities and deficits.

9. There are a few children in your class who make errors. Which of these is most likely to be your analysis of the situation?
(1) The children have poor intelligence.
(2) The children are not interested in studies and want to create indiscipline.
(3) The children should not have been promoted to your class.
(4) The children have not yet gained conceptual clarity and there is need for you to reflect on your pedagogy.
10. A student highlights the main points in a chapter, draws a visual representation and poses questions that arise in her mind at the end of the chapter. She is

(1) trying to regulate her own thinking by organization of ideas.

(2) trying to use the strategy of maintenance rehearsal.

(3) ensuring observational learning.

(4) trying to use method of loci.

11. How can a teacher help children become better problem solvers?

(1) By giving children a variety of problems to solve and support while solving them

(2) By encouraging children to look for answers to the problems in the textbook

(3) By providing correct solutions to all the problems they pose to students

(4) By giving tangible rewards for solving problems
12. Which one of these is a principle of child development?

(1) Development occurs due to interaction between maturation and experience.

(2) Experience is the sole determinant of development.

(3) Development is determined by reinforcement and punishment.

(4) Development can accurately predict the pace of each individual child.

13. In the context of 'nature – nurture' debate, which one of the following statements seems appropriate to you?

(1) A child is like a blank slate whose character can be moulded by the environment into any shape.

(2) Environmental influences only have a little value in shaping up a child's behaviour which is primarily genetically determined.

(3) Heredity and environment are inseparably interwoven and both influence development.

(4) Children are genetically predisposed to what they would be like irrespective of whatever environment they grow up in.
15. Socialization is a process of
(1) acquiring values, beliefs and expectations.
(2) assimilation and accommodation.
(3) learning to critique the culture of a society.
(4) socializing with friends.

16. Piaget proposes that pre-operational children are unable to conserve. He attributes this inability to which one of the following factors?
(1) Inability of hypothetico-deductive reasoning
(2) Personal fable
(3) Irreversibility of thought
(4) Lack of high-level abstract reasoning

17. According to Piaget’s theory, children learn by
(1) memorizing information by paying due attention.
(2) scaffolding provided by more able members of the society.
(3) processes of adaptation.
(4) changing their behaviour when offered appropriate rewards.

18. According to Vygotsky, zone of proximal development is
(1) zone demarking the support offered by the teacher.
(2) the gap between what the child can do independently and with assistance.
(3) the amount and nature of support provided to the child to achieve her potential.
(4) what the child can do on her own which cannot be assessed.
19. A teacher in a multi-cultural classroom would ensure that the assessment considers the following:

1. Reliability and validity of her assessment tool
2. Expectations of the school administration by complying with the minimum levels of learning
3. Standardization of the assessment tool
4. Socio-cultural context of her students

20. An upper primary school constructivist classroom would foresee the following role of students in their own assessment:

1. Make detailed guidelines for how marks would be correlated to students’ achievement and prestige in class.
2. Students would be the sole determinants of their own assessment.
3. Students would plan for assessment with the teacher.
4. Denying that assessment has a role in teaching-learning.

21. The rationale behind inclusive education is that

1. society is heterogeneous and schools need to be inclusive to cater to heterogeneous society.
2. we need to take pity on special children and provide them access to facilities.
3. it is not cost-effective to provide for separate schools for special children.
4. the benchmarks for performance of each child should be uniform and standardized.
22. Which one of the following would be the most effective way to identify a creative child by the teacher?
(1) Observing how the child interacts with peers in team tasks
(2) Administering standardized intelligence tests
(3) Giving objective type tests
(4) Detailed observation of the child especially when she solves problems

23. A teacher can effectively respond to the needs of children from 'disadvantaged sections' of society by
(1) telling the 'other children' to co-operate with the 'disadvantaged children' and help them learn the ways of the school.
(2) reflecting on the school system and herself about various ways in which biases and stereotypes surface.
(3) ensuring that the children do not get a chance to interact with each other to minimize the chances of their being bullied.
(4) sensitizing the disadvantaged children to the norms and strictures of schools so that they can comply with those.

24. Research has pointed out that several levels of discrimination exist in the schools. Which of these is not an example of discrimination at upper primary level?
(1) Many teachers use only lecture method to teach.
(2) Dalit children are made to sit separately during mid-day meals.
(3) Girls are not encouraged to take up maths and science.
(4) Teachers have low expectations of children from lower socio-economic strata.

25. निम्नानुसार शिक्षण में से कौन-सा तरीका अध्यापिका के द्वारा एक सूचनात्मक बच्चे की पहचान करने के लिए सर्वाधिक उपयुक्त होगा?
(1) यह अवलोकन करना कि बच्चे समूह कार्यों में सहभागिता के साथ किस प्रकार से प्रतिक्रिया करती है
(2) मानकीकृत बुद्धि परीक्षाओं को देना
(3) वस्तुनिष्ठ प्रकार के परीक्षाओं को देना
(4) बच्चे का विशेष रूप से अवलोकन करना, विशेष रूप से उस समय जब वह समस्याओं को हल करता है

26. एक अध्यापिका विभिन्न स्तरों के बच्चों की आवश्यकताओं के प्रति प्रभावशालीता तरीके से प्रतिक्रिया निम्नलिखित द्वारा कर सकती है:
(1) ‘अन्य बच्चों’ को ‘बच्चों वर्ग से आए बच्चों’ के साथ सहभाग करने के लिए नक्सल तथा विख्यात के तरीकों को सीखने में उनकी सहायता करने के लिए कहना
(2) विद्यालयी व्यवस्था तथा स्वर्ण के उन तीर्थ-शरीर के बारे में विचार करना जिनसे पक्षपात एवं रुढ़िवट नहीं है
(3) उनके प्रति विद्युतित होने के अवसरों को कम करने के लिए यह सुनिश्चित करना कि बच्चे आपस में अन्योन्याय करने का मौका न पाएं
(4) बच्चों से आए बच्चों को विद्यालय के नियमों एवं अपेक्षाओं के प्रति सम्बद्धतावाली बनाना ताकि वे उनका अनुपालन करें

27. अनुसंधान में पता चला है कि विद्यालयों में अनेक स्तरों पर विभेदीकरण पाया जाता है। उच्च प्रारम्भिक स्तर पर इनमें से कौन-सा विभेदीकरण का एक उदाहरण नहीं है?
(1) बहुत से अध्यापक पढ़ाने के लिए केवल व्याख्यान विधि का प्रयोग करते हैं।
(2) मध्यम भोजन के दीर्घ दौरान दूसरे बच्चों को अलग बैठाया जाता है।
(3) लड़कियों को गणित तथा विज्ञान विषयों को लेने के लिए प्रोत्साहित नहीं किया जाता है।
(4) अध्यापकों के निम्न सामाजिक-आर्थिक परिस्थितियों से आए बच्चों से बहुत कम अपेक्षाएँ होती हैं।
25. Which of these is a characteristic of a child with learning disability?

(1) An IQ below 50
(2) Bullying other children and engaging in aggressive acts
(3) Doing the same motor action repeatedly
(4) Difficulty in reading fluently and reversing words

26. Which one of the following statements best describes why children should be encouraged to ask questions in the class?

(1) Questions increase the curiosity of the children.
(2) Questions take learning forward by interactions and lead to conceptual clarity.
(3) Children need to practise their language skills.
(4) Children can be made to realize that they lack intelligence by making them think of all the things they don't know about.

27. Which one of the following assessment practices will bring out the best in students?

(1) When students are required to reproduce facts as tested via multiple choice questions
(2) When conceptual change and students' alternative solutions are assessed through several different methods of assessment
(3) When the marks obtained and the position secured by the student in the class are the ultimate determinants of success
(4) When the emphasis is laid upon positive correlation between test scores and student ability
28. The amount and type of scaffolding to a child would change depending on the
(1) mood of the teacher.
(2) rewards offered for the task.
(3) level of the child's performance.
(4) child's innate abilities.

29. As an upper primary school mathematics teacher you believe that
(1) students’ errors provide insights into their thinking.
(2) not all children have the ability to study mathematics in upper primary school.
(3) boys will learn mathematics without much effort since they are ‘born with it’ and you need to pay more attention to girls.
(4) students need to possess procedural knowledge even if they don’t understand conceptual basis.

30. Which one of these statements do you agree with?
(1) A child fails because the government is not giving enough technological resources in schools.
(2) A child's failure can be attributed directly to the genetic material he/she has acquired from his/her parents.
(3) A child’s failure is a reflection on the system and its inability to respond to the child.
(4) A child’s failure is primarily due to lack of parent's education and economic status.
Candidates have to do questions 31 to 90 EITHER from Part II (Mathematics and Science) OR from Part III (Social Studies/Social Science).

PART II / भाग II
MATHEMATICS AND SCIENCE / गणित व विज्ञान

Directions: Answer the following questions by selecting the most appropriate option.

31. Place of mathematics education in the curricular framework is positioned on twin concerns:
   (1) What mathematics education can do to improve the score of students in summative examination and how it can help to choose right stream in higher classes
   (2) What mathematics education can do to improve communication skills of every child and how it can make them employable after school
   (3) What mathematics education can do to engage the mind of every student and how it can strengthen the student's resources
   (4) What mathematics can do to retain every child in school and how it can help them to be self-dependent

32. LCM of 22, 54, 135 and 198 is
   (1) $2^2 \times 3^3 \times 5 \times 11$
   (2) $2 \times 3^3 \times 5 \times 11$
   (3) $2^2 \times 3^2 \times 5 \times 11$
   (4) $2^3 \times 3^2 \times 5 \times 11$
33. In class VI, in the unit of ‘Understanding Quadrilaterals’, important results related to angle-sum property of quadrilaterals are introduced using paper folding activity followed by the exercise based on these properties. At this level proof of the angle property is not given, as the students of class VI are at Van Hiele level of

(1) Level 2 – Informal Deduction
(2) Level 3 – Deduction
(3) Level 0 – Visualization
(4) Level 1 – Analysis

34. The term, ‘Mathematical tools’ refers to

(1) Calculators, rulers, tape measures, protractors, compass, etc.
(2) All types of materials including language, written symbols, meaningful instructions to establish their purpose
(3) Physical material like geo-board and 3D models, cubic rods, etc.
(4) Charts based on formulae and concepts, graph papers, dotted sheets, etc.
35. Four stages of language development in mathematics classroom in order are

(1) Everyday language → Mathematized situation language → Language of Mathematics problem solving → Symbolic language

(2) Everyday language → Language of Mathematics problem solving → Mathematized situation language → Symbolic language

(3) Everyday language → Language of Mathematics problem solving → Symbolic language → Mathematized situation language

(4) Everyday language → Symbolic language → Language of Mathematics problem solving → Mathematized situation language

36. A learner exhibiting difficulty in sorting, recognizing patterns, orienting numbers and shapes, telling time and measurement may have dyscalculia with difficulty in:

(1) language processing
(2) visual-motor coordination
(3) visual-spatial skills
(4) visual-memory
37. CBSE announced the celebration of ‘GANIT Week’ in schools to commemorate the birth anniversary of the legendary mathematician, Srinivasa Ramanujan. GANIT stands for

(1) Growing Ability in Numerical Innovations and Techniques
(2) Growing Ability in Numerical Innovations and Training
(3) Growing Aptitude in Numerical Innovations and Techniques
(4) Growing Aptitude in Numerical Innovations and Training

38. Learning mathematics at upper primary level is about

(1) gaining understanding of mathematical concepts and their applications in solving problems logically.
(2) learning lots of new formulae and algorithms.
(3) remembering solutions or methods of various types of mathematical problems.
(4) learning problem solving techniques only.

39. Read the following question from class VI textbook:
“Write a pair of integers whose sum gives a negative integer.”
The above question refers to

(1) Reflective question
(2) Multi-disciplinary question
(3) Open-ended question
(4) Closed-ended question

37. विद्यालयों में प्रसिद्ध गणितज्ञ श्रीनिवास रामानुजन के जन्म की जयंती की स्मृति पर सी.बी.एस.ई. ने 'GANIT Week' (गणित सप्ताह) मनाने की घोषणा की। GANIT का अर्थ है:

(1) संख्यात्मक नवाचार और तकनीक में योग्यता में वृद्धि
(2) संख्यात्मक नवाचार और प्रशिक्षण में योग्यता में वृद्धि
(3) संख्यात्मक नवाचार और तकनीक में अभिवृत्ति में वृद्धि
(4) संख्यात्मक नवाचार और प्रशिक्षण में अभिवृत्ति में वृद्धि

38. उच्च प्राथमिक श्तर पर गणित सीखने का तात्पर्य है:

(1) गणितीय अवधारणाओं की समझ में वृद्धि और उनके अनुयोग से समस्याओं को तक्सिसंगत रूप से हल करना।
(2) बहुत सारे नए सूत्रों और परिकल्पन प्रक्रियाओं को सीखना।
(3) विभिन्न प्रकार की गणितीय समस्याओं के हल और विधियों को स्पष्ट करना।
(4) केवल समस्याओं को हल करने की तकनीकों को सीखना।

39. कक्षा VI की पाठ्य-पुस्तक से निम्नलिखित प्रश्न को पढ़िए:
“पूर्णाकों का ऐसा युग्म लिखिए, जिसका योगफल एक अर्धपूर्णाक पूर्णाक है।”
उपर दिया गया प्रश्न उल्लेख करता है

(1) चित्रनाथपूर्ण प्रश्न
(2) बहुविषयी प्रश्न
(3) खुले अंत वाला प्रश्न
(4) बन्द अंत वाला प्रश्न
40. The product of integers between $-7$ and $-3$ is
   (1) 120
   (2) $-120$
   (3) 840
   (4) $-360$

41. Which one of the following statements is correct?
   (1) Sum of two prime numbers is always a prime number.
   (2) A composite number can be odd.
   (3) There is no even prime number.
   (4) '1' is the smallest prime number.

42. In geometry class of VI grade students, the teacher explained the construction of angles measuring $30^\circ$, $60^\circ$ and $90^\circ$, with the help of demonstration of construction and bisector of an angle. Then she asked the students to construct an angle of $15^\circ$ and an angle of $45^\circ$. This task at this point reflects the teacher's intention to
   (1) assess the learner's performance in summative assessment.
   (2) assess the student's understanding and ability to combine two skills learnt, to accomplish the given task.
   (3) engage every student in some work.
   (4) give the exposure of experiential learning.