NCHMCT JEE Sample Paper

The sample questions/guidelines are only informative and indicative for the candidates. The actual questions may vary in difficulty level and content dispersion.

NUMERICAL ABILITY AND SCIENTIFIC APTITUDE

1. The difference of the squares of two consecutive odd integers is divisible by which of the following integers?
(1) 3 (2) 6 (3) 7 (4) 8

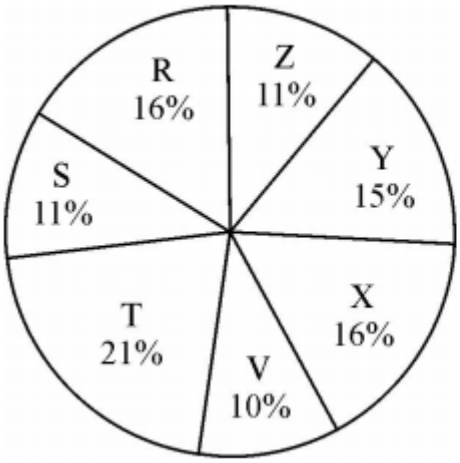
2. Nine persons went to a hotel for taking their meals. Eight of them spent 12 each on their meals and the ninth spent 8 more than the average expenditure of all the nine. What was the total money spent by them?
(1) 115 (2) 116 (3) 117 (4) 108

3. A, B and C started a business by investing 1,20,000, 1,35,000 and 1,50,000 respectively. Find the share of C, out of an annual profit of 56,700.
(1) 16,800 (2) 18,900 (3) 21,000 (4) 23,000

4. Two pipes can fill a tank in 10 hours and 12 hours respectively while a third pipe empties the full tank in 20 hours. If all the three pipes operate simultaneously, in how much time will the tank be filled?
(1) 6 hrs 45 min (2) 7 hrs 30 min (3) 7 hrs 15 min (4) 7 hrs 45 min

Directions (Questions 5-8): Study the following pie-chart and table to answer the questions based on them.

Proportion of Population of Seven Villages in 2014



Village	% Population Below Poverty Line
X	38
Y	52
Z	42
R	51
S	49
T	46
V	58

5. Find the population of village S if the population of village X below poverty line in 2014 is 12160.
(1) 18500 (2) 20500 (3) 22000 (4) 26000

6. The ratio of population of village T below poverty line to that of village Z below poverty line in 2014 is _____.
(1) 11 : 23 (2) 13 : 11 (3) 23 : 11 (4) 11 : 13

7. If the population of village R in 2014 is 32000, then what will be the population of village Y below poverty line in that year?
(1) 14100 (2) 15600 (3) 16500 (4) 17000

8. If in 2015, the population of villages Y and V increase by 10% each and the percentage of population below poverty line remains unchanged for all the villages, then find the population of village V below poverty line in 2015, given that the population of village Y in 2014 was 30000.
(1) 11250 (2) 12760 (3) 13140 (4) 13780

REASONING AND LOGICAL DEDUCTION

9. A is B's sister. C is B's mother. D is C's father. E is D's mother. Then, how is A related to D?
(1) Grandfather (2) Grandmother (3) Daughter (4) Granddaughter

Directions (Question 10): Complete the series.
10. 1, 2, 3, 10, „?", 9802
(1) 99 (2) 199 (3) 299 (4) 999

Directions (Questions 11-12): The questions given below have a statement followed by two assumptions I and II. Decide which of the assumptions is implicit from the statement.
Mark answer as
(1) if only assumption I is implicit
(2) if only assumption II is implicit
(3) if neither assumption I nor II is implicit
(4) if both assumptions I and II are implicit

11. Statement : Most people who stop smoking gain weight.
Assumptions
I. If one stops smoking, one will gain weight.
II. If one does not stop smoking, one will not gain weight.

12. Statement : Postal rates have been increased to meet the deficit.
Assumptions
I. The present rates are very low.
II. If the rates are not increased, the deficit cannot be met.

GENERAL KNOWLEDGE AND CURRENT AFFAIRS

13. How many members of Rajya Sabha, the upper house of Parliament of India retire in every two years?
(1) One-third (2) One-fourth (3) One-fifth (4) One-sixth

14. "Ginger Hotels", the popular chain of budget hotels is owned by the_____.
(1) Oberoi Group (2) Tata Group (3) Ambassador Hotels (4) Park Hotels

15. Which company has introduced its tea brand "Teavana", in India in January 2017?
(1) Starbucks (2) Nescafe (3) Costa Coffee (4) Gloria Jean's

16. _____ has been recently announced as the best actress in the 64th National Film Awards for the year 2016.
(1) Surabhi Lakshmi (2) Zaira Wasim (3) Kangana Ranaut (4) Tanvi Azmi

APTITUDE FOR SERVICE SECTOR

17. While selecting a candidate for a service industry job, you will go for a candidate who is
(1) highly academic.
(2) social and helpful.
(3) quiet and an introvert.
(4) responsible.

18. While working in a group, you tend to be
(1) a bit assertive.
(2) cooperating with others.
(3) adjusting with other members, but as it suits you.
(4) not getting much involved with group activities.

19. On coming across a very demanding and dominating customer, one should
(1) tell him that he has no business to behave like that.
(2) shout back at him and tell him that he is unreasonable.
(3) politely tell him that he is unreasonable.
(4) try and resolve his problem or inform your seniors.

20. If you mistakenly occupy a wrong berth in the train, on arrival of the rightful passenger, you would
(1) quietly vacate the berth.
(2) apologise and then vacate the berth.
(3) tell the passenger that you would vacate after you get a berth.
(4) vacate but tell the passenger that nothing much has happened and he should not make a fuss.

ENGLISH LANGUAGE

Directions (Questions 21-22): Read the following passages carefully to answer the questions that follow.

Passage
The first step is for us to realize that a city need not be a frustrate of life; it can be among other things, a mechanism for enhancing life, for producing possibilities of living which are not to be realized except through cities. But, for that to happen, deliberate and drastic planning is needed. Towns as much as animals, must have their systems of organs-those for transport and circulation are an obvious example. What we need now are organ systems for recreation, leisure, culture, community expression. This means abundance of open space, easy access to un-spoilt nature, beauty in parks and in fine buildings, gymnasium and swimming baths and recreation grounds in plenty, central spaces for celebrations and demonstrations, halls for citizens' meetings, concert halls and theaters and cinemas that belong to the city. And the buildings must not be built anyhow or dumped down anywhere; both they and their groupings should mean something important to the people of the place.

21. According to the author, the function of a city is to
(1) provide adequate community expression.
(2) make available centres of recreation and public gatherings.
(3) facilitate traffic and communication.
(4) raise the tone of life and make it more meaningful.

22. The opening sentence of the passage implies that
(1) the possibilities of living a decent life cannot be found in a city.
(2) only a city can provide the means to lead a full life.
(3) among other places, a city can also help man to lead a successful life.
(4) a city provides better opportunities for good living than a village.

Directions (Question 23): Choose the word which best expresses the meaning of the underlined word in the sentence.
23. The tour was cancelled on account of incessant rain.
(1) constant (2) heavy (3) intermittent (4) unexpected

Directions (Question 24): Choose the word which is closest to the opposite in meaning of the underlined word in the sentence.
24. We must realize the futility of wars.
(1) urgency (2) importance (3) value (4) usefulness

Directions (Question 25): In the following question, four words are given, three of which are spelt correctly while one is mis-spelt. Choose the mis-spelt word.

25. (1) Tolerance (2) Benevolence (3) Indepandence (4) Occurrence

Directions (Question 26): Fill in the blank.

26. We felt it was a movement unable to resist for_____.
(1) more time (2) much longer (3) any more (4) any length