

Bihar merit test Examination
2020-21

Class - X CBSE

Full Marks = 75

GENERAL SCIENCE

- (1) What does the letter XP stands for in the product XP
 - a. Extended Product
 - b. Extra Pampering
 - c. Experienced
 - d. Entry level product
- (2) Olympic game 2019 to be organized in which country
 - a. London
 - b. Japan
 - c. China
 - d. Germany
- (3) Who is the author of discovery of India
 - a. Jawaharlal Nehru
 - b. Mahatma Gandhi
 - c. Indira Gandhi
 - d. Sarojininaidu
- (4) The mongols under Genghis Khan invaded Transoxiana in North-East Iran in.
 - a. 1217
 - b. 1229
 - c. 1212
 - d. 1919
- (5) Bundi is surrounded in south by
 - a. Mewar
 - b. Jaipur
 - c. Udaipur
 - d. Malwa
- (6) Choose the wrong statement
 - a. Manganese - A.P, Odisha, M.P
 - b. Limestone - Tamil Nadu, Bihar, Gujrat
 - c. Mica - A.P, Rajasthan, Bihar
 - d. Bauxite - Karnataka, A.P, Tamil Nadu.
- (7) Dyarchy introduced by the government of India in
 - a. 1909
 - b. 1928
 - c. 1911
 - d. 1919
- (8) Choose the wrong statement
 - a. Common civil code in Mizoram
 - b. The international court of justice is situated in Hague
 - c. A replacement of the ineffective leave of nation, the organization was established on 24th Oct. 1945
 - d. Life Corporation of India was established in 1954
- (9) How many villages comes under a nationwide plan, PMGSY
 - a. 10 Lakhs
 - b. 12 Lakhs
 - c. 18 Lakhs
 - d. None of the above
- (10) When was first finance department established in India
 - a. 1952
 - b. 1956
 - c. 1954
 - d. 1952

Direction (11-15) given below are two statements labeled as assertion and reason. In the context of the two statements, which of the following is correct

- a. Both A and R are true and R is the correct explanation of A
- b. Both A and R are true and R is not the correct explanation of A
- c. A is true but R is false
- d. A is false but R is true

(11) Assertion (A)-The low tide is higher than normal at the time of new tide
Reason (R) - New tide occur at the time of full moon

(12) Assertion (A)-On the equinoxes, the day and night are not equal. All over the globe
Reason (R) -On the equinoxes, the position of earth with respect to sun is such that neither pole is inclined towards the sun

(13) Assertion (A)-Isotherm have a general east-west trend around the earth
Reason (R)-There is a general decrease of isolation from equator to polar region

(14) Assertion (A)- The counsel of ministers is collectively responsible to the lower house
Reason (R)-Most of the ministers are of lower house

(15) Assertion (A)-Our constitution is the bulkiest constitution in the world, about five times the size of the constitution of USA

Reason (R)-The father of the constitution wanted to include all good elements from all the constitutions of the free world at that time and special clauses have been provided for laying down the fundamental rights, directive principles, rules of election, list of national languages and detail about the conduct of government

(16) India's first helicopter taxi service (hell-taxi) will be launched in which city

- a. New Delhi
- b. Mumbai
- c. Bengaluru
- d. Kolkata

(17) _____ has become the first Hindu in Pakistan government in more than 20 years

- a. Prabhulal
- b. Kripal Singh
- c. Krishna Lal
- d. Darshan Lal

(18) Who won the world athletic championship 2017 in London

- a. Justin Gatlin
- b. Adam Langer
- c. Usain Bolt
- d. Vincent Taylor

(19) On August 9, 2017 India celebrated ____ anniversary of the Quit India movement

- a. 75th
- b. 76th
- c. 77th
- d. 78th

(20) On August 10, 2017, Facebook launched YouTube competitor called

- a. Watch
- b. My Video
- c. Screen
- d. Scene

ENGLISH

Direction Q. No- 21-13, read the following sentences/words carefully and give the meanings of the which are underlined

- (21) ASSESS
- a. overload
 - b. permit
 - c. enter
 - d. measure

- (22) Guile
- a. greedy
 - b. careful
 - c. cunning
 - d. careless

- (23) Transient
- a. Irregular
 - b. temporary
 - c. ephemeral
 - d. unstable

Question 24-26, in the following question four alternative are given for the idioms/phase. Choose the correct alternative which best express the meaning of the idioms/ phase

- (24) His works seem to be Penelope's web
- a. declining
 - b. in his best from
 - c. endless
 - d. difficult

- (25) We cannot depend on him for this arrangement as it needs carefully handling and he is like a bull in a china soap.
- a. a tactful person
 - b. a no nonsense person
 - c. a felicitous person
 - d. a clumsy person

- (26) The professor is going to show the student an old bone
- a. the student are going to be shown by professor
 - b. the student has going to be shown an old bone
 - c. the student are going to be shown an old bone
 - d. the student was going to be shown by professor

Direction Q.No- 27-29, a sentence has been given in active and passive voice, out of four alternative suggested select the one which best expresses the same sentence in passive/ active voice

- (27) He completed the story on time
- a. The story was being completed by him on time
 - b. The story completed by him on time
 - c. The story had completed by him on time.
 - d. The story was completed by him on time.

- (28) Are you not revising your lessons
- are you lessons not be revised by you
 - are you lesson not being revised by you
 - are you lesson revised by you
 - are you not being revising your lessons

- (29) one must keep one's promise
- one's promise are kept
 - one's promise must be kept
 - one's promise were kept
 - one's promise must kept

Direction Q.No-30-31, a sentence has been given in direct/indirect form out of the four alternative suggested, select the one which best express the same sentence indirect/direct.

- (30) She asked him, "who are you? Who are you looking for?"
- She asked him who was he and who was he looking for
 - She asked him who are you and who are you looking for
 - She asked him who he was and who he was looking for
 - She questioned him who he was and who was he looking for

- (31) "Good morning, father" babykochamma would call out when she saw him?
- when baby kochamma saw him, she would wish the father a good morning.
 - baby kochamma saw him, she would wish the father when she was him in the morning.
 - baby kochamma would call out to father in the morning when she saw him.
 - all of the above.

(32) the father exclaimed admiringly that it was very clever of him to have solved the puzzle so quickly.

- The mother said, "you solved to puzzle very quickly", said the mother.
- You are a clever. That's why you solved the puzzle quickly; said the mother.
- You are a clever. That's why you solved the puzzle quickly", said the mother.
- How clever of you to have solved the puzzle so quickly!", said the mother.

(33) The boy said, "I have been working very hard since last night".

- The boy said that he was been working very hard since last night.
- The boy said that he had been working very hard since previous night.
- The boy said that he had been working very hard since yesterday night.
- All of the above.

(Q) Direction (34-37) in the following question out of the four alternative choose the one which can be substitute for the given words/sentence.

(34) One who collects coins as a hobby?

- a. Ornithologist
- b. Statistician
- c. Numismatist
- d. Philatelist

(35) Open to injury or criticism.

- a. Vulnerable
- b. Naïve
- c. Sensitive
- d. Invincible

(36) One who is appointed to deal with complaints made by common people against banks companies.

- a. Jurist
- b. Arbitrator
- c. Ombudsman
- d. Magistrate

(37) To walk slowly wasting time.

- a. Stagger
- b. Stride
- c. Dawdle
- d. Plod

(Q) Direction (18-20): Some part of the sentences have errors and some have none. Find out which part of a sentence has an error and blacken oval corresponding to the appropriate letter (A, B, C).

(38) I am not going to revoke the punishment (A) / Recommended for him by the disciplinary committee (B) / of the college until he does not apologize for his misbehaviour (C) / No error (D)

(39) He didn't say that (A) / he will bring the books tomorrow (B) / did he? (C) / No error (D)

(40) It is raining (A) / since 8 O' clock (B) / this morning (C) / No error (D)

MATHEMATICS

- (41) $\frac{1}{1-n} - \frac{1}{1+n} - \frac{2n}{1-n^2} - \frac{4n^3}{1+n-8n} + \frac{16n}{1-n} = ?$
- 1
 - 1
 - 2
 - none of these
- (42) $\frac{1}{a(a-b)(a-c)} + \frac{1}{b(b-a)(b-c)} + \frac{1}{c(c-a)(c-b)} = ?$
- abc
 - $a^2b^2c^2$
 - $\frac{1}{abc}$
 - $-\frac{1}{abc}$
- (43) In a triangle, $\angle C$ is an obtuse angle. The bisector of the exterior angles at A and at B meet BC and AC respectively. If $BE=AD=AB$ then, value of angle $\angle ACB$
- 105
 - 110
 - 135
 - 108
- (44) If the ratio of external angle and internal angle of a regular polygon is 1:17 then the number of sides of regular polygon is
- 20
 - 12
 - 18
 - 36
- (45) The circle of equal radius "a" cm touch each other. The area of shaded region is
- ~~a.~~
- -
 -
 -
- (46) The right angled triangle isosceles triangle is inscribed in a semi-circle of radius 0.07m. the area enclosed by the semi-circle but exterior to the triangle is:-
- 14cm^2
 - 28cm^2
 - 44cm^2
 - 68cm^2
- (47) Choose the wrong statement
- A histogram has adjacent bans over the intervals
 - A regular polyhedron same number of face meet at each vertex
 - In prism, lateral faces are triangle with a common vertex
 - None of the above

- a. 5/13, 7/13
- b. 7/13, 9/13
- c. 9/13, 4/13
- d. None of the above

(49) one of the factor of the expression $(2x-3y)^2-7(2x-3y)-30$ is

- a. $2x-3y-10$
- b. $2x-3y+10$
- c. $2x-3y+5$
- d. $6x-4y-15$

(50) if $a+b+c=0$, then which of the following does not hold true

- a. $a^3+b^3+c^3=3abc$
- b. $a^2+b^2+c^2=3abc$
- c. Both A and B
- d. None

(51) In a hostel, there are sufficient food for 200 student for a month of 31 days, after 27 days 120 student left the hostel, for how many extra days will the rest of food last for remaining student

- a. 8 days
- b. 6 days
- c. 12 days
- d. 10 days

(52) if $N=$

Find-N

- a. 1
- b. 2
- c. 0
- d. None of these

(53) if the sum became 1.728 times to itself in n years at the rate of interest 20% pr annum and the interest is compounded annually. The value of n will be

- a. 5
- b. 4
- c. 3
- d. 1

(54) The two identical jars filled with acid solution are mixed together ratio of the volume of acid to the volume of water in jar-1 is $P:1$ and Jar-2 is $Q:1$ in the mixture ratio of acid and water is

- a. $\frac{P+Q+R}{P+Q+2PQ}$
- b. $\frac{P+Q+2R}{P+Q+2}$
- c. $\frac{P+Q+2PQ}{P+Q+2}$
- d. $\frac{P+Q+PQ}{P+Q+2}$

(55) Find the value of $\frac{\sin^2 22 - \sin^2 68}{\cos^2 22 + \cos^2 68} + \sin^2 63 + \cos 63 \sin 27$

- a. 1
- b. 2.
- c. 0
- d. None of these

(56) The letter of English alphabet is chosen at random. The probability that it is a letter of word "MATHEMATICS"

- a. $\frac{11}{26}$
- b. $\frac{5}{13}$
- c. $\frac{9}{26}$
- d. $\frac{4}{13}$

(57) Sum of first 10 natural number is

- a. 3325
- b. 3025
- c. 2925
- d. 3125

(58) Area of a sector of a circle of radius 36 cm is 54 cm^2 . find the length of corresponding area of the sector

- a. 4 pie
- b. 6
- c. 8
- d. 3

(59) It can take 12n hour to fill a swimming pool using two pipes. if the pipe of larger diameter is used for 4 hour and the pipe of smaller diameter is used for 9 hour only half the pool can be filled. How long it would take for each pipe to fill the pool separately

- a. 13, 35
- b. 20, 40
- c. 20, 30
- d. 40, 20

(60) The speed of a boat downstream is 15 Km/h and the speed of current is 3 km/h. Find the total time taken by the boat to cover 15 km upstream and 15 km down stream

- a. 2 hr 40 min
- b. 2 hr 42 min
- c. 3 hr 10 min
- d. 2 hr 30 min

Science

(61) Ramu is a student who jumps off a sket towards the west direction at a speed of 10km/h after it stops at the bottom of an ice hill. He slip down into the ice air blows at very high speed in ice hill at a speed of 10km/h in north direction. In which direction will the sket move likely to move as the student, ramu jumps off

- a. South east
- b. North east
- c. West
- d. None of these

- (68) Which among the following is responsible for causing of a disease, late blight
- Candidaalbicams
 - Aspergillus
 - Ascomycota
 - Phytophthora Infection

- (69) Operation flood was started by
- IDDB
 - IRDB
 - NRDB
 - NDDB

- (70) Choose the wrong statement
- Mesoglea is a part of hydra
 - Collon is a part of balamoglossus
 - Polychates is an example of annelida
 - Most cell is present in adipose tissue

- (71) Match the following with their size
- | | |
|-----------------------|----------------|
| a. smooth muscle cell | i. fusiform |
| b. Plurivaccular cell | ii. bioconcave |
| c. skin cell | iii. squamous |
| d. RBC | iv. Polygonal |
- 1-i, 2-iii, 3-ii, 4-iv
 - 1-I, 2-ii, 3-iv, 4-iii
 - 1-ii, 2-I, 3-iv, 4-iii
 - 1-I, 2-iv, 3-iii, 4-ii

- (72) Choose the wrong statement
- melting point of Cs metal is 301.7 F
 - temperature of non luminous part of flame is around 1573 F while shaping gold to ornament
 - during summer season room temperature is about 308 F
 - krypton has high sonority

- (73) The pink color of acidified KMnO_4 Solution disappears when Fe^{2+} is passed through it which of the following statement about this reaction is not correct.
- acts as an agent which loss electron.
 - is reduced to Mn^{2+}
 - act as an agent which gain electron.
 - none of the above

74. Ormol is a polymer of
- Polyvinyl Chloride.
 - Terylene
 - Polystyrene
 - Acrylonitrile

- (75) The primary use of asphalt in road construction is
- 82%
 - 68%
 - 94%
 - 70%

(76) Mohit took two test tubes makers I and II for an experiment. In test tube I, he put calcium carbonate and hydrochloric acid. While in test tube II, he put zinc and hydrochloric acid. Mohit passed the gas coming out from both the test tube in lime water. What are observed by Mohit

- a. The gas coming out from test tube-I turns lime water milky
- b. The gas coming out from test tube -II turns lime water milky
- c. The gas coming out from both the test tube turns lime water milky
- d. No result were found

(77) Two samples X and Y are tested with various indicators. The observation are listed in the following table

Sample	Phenolphthalein	Methyl Orange
X	Colourless	Red
Y	Light Pink	Yellow

- a. X is NaOH Y is HCl
- b. X is NaOH Y is KOH
- c. X is HCl Y is HNO₃
- d. X is HCL Y is NaOH

(78) Choose the wrong statement

- a. Mass of Jupiter is 1.90×10^3 Kg
- b. Period of rotation of Saturn is 10.2 earth hour
- c. HAMSET is an Indian satellite
- d. Number of moon of Jupiter is 26

(79) A plane mirror is inclined at an angle θ , with X axis. The point P is on the mirror. An incident ray MP, after reflection at point P of the mirror, passes through point A
Diagram

Find the value of θ

- a. 30 Degree
- b. 45 degree
- c. 120 degree
- d. 60 degree

(80) An emulsion is a colloidal solution formed by mixing

- a. two miscible liquid
- b. any two liquid
- c. any two gas
- d. two immiscible liquid