

This question paper consists of 3 sections

1. Reading Comprehension – 15 marks
2. Precis writing -10 marks
3. Grammar & Vocabulary- 15 marks
4. Composition writing - 10 marks

I Reading Comprehension – 15 marks

1. Read the following passage carefully:

After lunch, without waiting to get permission from their parents, the two boys set off to explore the part of the beach which lay beyond the headland. They persuaded their young sister to stay behind saying that the long walk would be too tiring for her. Once they had passed beyond the headland, the beach stretched away endlessly in front of them. It was like discovering a new world. And what exciting things there were to do! There were damp, dark caves to explore, in each of which they half expected to come across smugglers hiding; there were innumerable pools among the rocks, full of small fish and other sea-creatures; and scattered along the beach, there were all those strange, yet commonplace, objects which are washed up and left by the tide.

The afternoon passed quickly and the sun was already beginning to go down when the two boys reluctantly decided to turn back and make their way homewards. Long before they reached the headland, however, they could see that the tide had come in so far that they were now cut off from the other part of the beach. They looked at each other in dismay. It was useless to go on, since clearly there was no way of getting beyond the headland. If, on the other hand they went back the way they had just come, the tide would come in long before they reached the end of the beach. Their only chance of escape was to find a way up the cliff, which in some places was not very steep. At least they might be able to climb high enough to be out of reach of the waves, which were coming closer all the time.

In less than ten minutes they found a narrow path which seemed to lead all the way to the cliff top. But their troubles were not yet over. Halfway up, the path was blocked by a large rock, which they could not climb over. The two boys at once began shouting at the top of their voices, hoping that someone

- 25 walking along the cliff top might hear them. They were both surprised, however, when their father's face appeared over the top of the rock. He told them not to move until he came back.

In a short while he reappeared with two policemen, one of whom climbed down a rope which was lowered over the rock. The two boys were then pulled up to safety. At the top of the cliff they found their anxious mother and, with her, their young sister. She had told her parents where they had gone and thus saved them from spending a wet night on the cliff.

- 30 1. On the basis of your reading of the passage complete the following sentences in the space provided. (1X5=5marks)

- a. The two boys convinced their sister that
- b. The boys expected to.....
- c. When the boys decided to go home they found out that
- d. The only way of escape from the tide was to.....
- e. The policeman rescued the two boys by.....

2. The two boys discovered a wonderful new world when they went exploring on the beach. List three things that the boys found exciting (1X3=Marks)

- a.....
- b.....
- c.....

3. Find words in the passage which mean the same as the following. (1X7=7)

- a. To travel around an area to learn about the plane (Lines 1-5).....
- b. Extended (line 1-5).....
- c. A very large number (line 5-10).....
- d. Rise and fall in the level of the sea (line 10-15).....
- e. Ordinary, everyday (line 10-15).....
- f. Unwillingly with hesitation (line 10-15).....
- g. Worried and concerned (line 25-30).....

| | |
|----------------------|-----------|
| 2. Précis writing | -10 marks |
| Main points/contents | -6marks |
| Fluency | -2marks |
| Accurecy | -2marks |

Read the passage “**A DRUG NAMED TELEVISION**” then make précis of the passage in not more than 60-100 words .

Television viewing has become the Indian drug of choice. As the drug suppliers celebrate the mass adduction by offering more and more channels and inane programmes to fill them, cautionary voices warning of the dangers tend to be lost in the self-congratulatory cacophony of the pushers and users.

Over the last two decades, studies from many parts of the world have established the harmful consequences of television viewing. What one refers to as the ‘harmful consequences’ of this recreational drug relates not to what is shown on television but to the mere fact of television consumption. For instance, we read alarming reports of obesity among middle class Indian children and youth. Students from other parts of the world have conclusively linked the increase in obesity to rise in television viewing. Take the example of China. In 1997, when less than eight per cent of Chinese children watched television for more than two hours, there was no relation between television consumption and body weight. Less than three years later, with a striking increase in television sales and hours of viewing, there was a clear relationship between television consumption and obesity. In absolute numbers, there are more obese children in chins today than in the United States. We are not far behind, If we haven’t already caught up with the leaders in this particular race.

The mechanisms that establish the relationship between television viewing and obesity are well known. A couch potato, by definition, expends very little energy. In fact, the energy used in watching television is less than in any other human activity. Even doing nothing uses up more calories than watching television. Unless, of course, one is continuously surfing channels, an activity highly recommended for those who are unable to rid themselves of the addiction.

The second mechanism that links television to obesity is the change in eating habits. The role model effects on children of actors endorsing high calories products like coals, chips and chocolates, cannot be underestimated. But even without these role models, an increased consumption of sweets, salted snacks, and less intake of vegetables and fruits by children and young

people is significantly related to the amount of time spent in front of the television. Moreover, children in whose homes the television is on at meal times eat more than those where the set is switched off.

We Indians, who traditionally tend to equate being overweight with being 'healthy', may not be unduly alarmed by the studies linking obesity with television consumption. But with our deep commitment to the education of our children and our obsession with their academic achievements, we will perhaps sit up and take particular notice of some other studies. These explode the myth that all the information that television spews out will make a child grow up as a more aware, thinking adult. Long-term studies in other countries demonstrate that television viewing is negatively related to academic level he or she is likely to achieve as a 26-year-old adult. Television is not like ancient Greek or Indian theatre where the engagement of the public was intense and profound. Television is more akin to the circus of the Romans. More than ninety percent of television programmes is entertainment. It is a culture of spectacle, where the viewer is the passive participants. (400 words approx)

(by Sudhir Kakar, The Times of India)

3. Grammar & Vocabulary- 15 marks

I.A Rewrite the following sentences as directed: (1 X 1=1 marks)

- a. The Prime Minister of India inaugurates the Interstate Science Exhibition next month. (Use appropriate form to convey future time action)

.....

- b. The following paragraph has not been edited. There is an error in each line. Write down the error along with the correction as shown below in your answer sheet. The first one has been done as an example (1X 6=6 marks)

| | Errors | Correction |
|--|-----------|------------|
| When the liner was finally vanished | was | had |
| Over the horizon, I begin to comprehend | (a) | |
| that I am absolutely alone in the stormy | (b)..... | |
| night sea. I keep changing directions . | (c)..... | |
| First I thought I have to swim one way | (d)..... | |
| then another. I feel that there was | (e)..... | |
| no way of founding my way in this | (f)..... | |
| night time ocean. | | |

- c. Complete the following passage by writing ONE suitable word to fill in each blank in your answer sheet and number it correctly. The first one has been done as an example.

(1X1/2=3 marks)

Our world is (a) an enormous place,
fulldifferent creatures (b).....
.....live (c).....
.....million different ways. Each (d).....
creature lives..... its own habitat (e).....
which isplace which provides (f).....
it with food and shelter according to the
environment or surroundings.....
suits it best. (g).....

IB. Tick the correct option

1X5=5 marks

1. "Predecessors" means.....
 - a. those who lived before.
 - b. those who died before.
 - c. those who worked before.
 - d. those future generations.
2. "Chaos" means.....
 - a. deep disturbance.
 - b. great/utter confusion.
 - c. choosing.
 - d. censoring.
3. The word that means the opposite of 'costly' is ...
 - a. expensive.
 - b. overpriced.
 - c. cheap.
 - d. easy to buy
4. The antonym of 'arrange' is.....
 - a. disarrange.
 - b. rearrange.
 - c. discard.
 - d. random.
5. The word that means the opposite of 'movable' is....
 - a. impassive.
 - b. immovable.
 - c. blocked.
 - d. glued.

-
4. **Composition writing - 10 marks**
- | | |
|-----------------|-----------|
| Content | -6 |
| Fluency | -2 |
| Accuracy | -2 |

Write a short essay on the following topics:

My Greatest Wish

Or

My Favourite Game.

1. According to Gandhiji, the Khilafat issue offered a golden opportunity for the promotion of the Hindu-Muslim unity in the country. He urged Hindus to lend full support to the Indian Muslims on this issue. The Khilafat issue related to the policy of the British Government towards
 - a. Turkey
 - b. Afghanistan
 - c. Iraq
 - d. Iran
2. Microphone is used to convert
 - a. sound waves into electrical energy
 - b. sound waves into light rays
 - c. electrical energy into sound waves
 - d. sound waves into magnetic currents.
3. The oldest mountains in India are
 - a. Aravalis
 - b. Vindhya
 - c. Satpuras
 - d. Nilgiri hills
4. GPS is an abbreviation for?
 - a. Global Poles System
 - b. Global PolySiliconium Store
 - c. Global Positioning System
 - d. Global Position Structure
5. Which of these positions has never been held by Dr Manmohan Singh in his entire career?
 - a. Member, Rajya Sabha
 - b. Governor, RBI
 - c. Member, Lok Sabha
 - d. Finance Secretary, Govt. of India

6. Numismatics is the study of
- Coins
 - Numbers
 - Stamps
 - Space
7. The largest cantilever bridge of India is
- Chambal bridge
 - Mahatma Gandhi Setu
 - Howrah Bridge
 - None of the above
8. Velocity of wind is measured by
- Speedometer
 - Tachometer
 - Anemometer
 - Audiometer
9. Logarithm tables were invented by
- John Napier
 - John Doe
 - John Harrison
 - John Douglas
10. The Sun is a _____.
- Star
 - Planet
 - Asteroid
 - Meteor
11. Sikkim was included in North East council of states in the year-----.
- 1999
 - 2000
 - 2001
 - 2002
12. Where is the permanent secretariat of the SAARC?
- Kathmandu
 - New Delhi
 - Islamabad
 - Colombo

13. Who wrote the book "The Origin of Species"?
- Sir Alexander Fleming
 - Louis Pasteur
 - Charles Darwin
 - Stephen Hawking
14. What did Gandhiji mean by "Swaraj"?
- Freedom for the country
 - Freedom for the meanest of the countrymen
 - Self Government
 - Self respect
15. Pressure cooker cooks rice faster because
- it always lets the steam escape
 - high pressure crushes the hard covering of rice grains
 - it does not let the heat energy escape easily
 - high pressure raises the boiling point of water
16. Treaty of Titalia between British East India Company & Sikkim was signed on:
- 1817 A.D
 - 1815 A.D
 - 1810 A.D
 - 1820 A.D
17. Steel is more elastic than Rubber because
- its density is high
 - it is a metal
 - ratio of stress to strain is more
 - ratio of stress to strain is less
18. For which of the following disciplines is Nobel Prize awarded?
- Physics and Chemistry
 - Physiology or Medicine
 - Literature, Peace and Economics
 - All of the above
19. Fathometer is used to measure
- Earthquake
 - Rainfall
 - Ocean Depth
 - Sound Intensity

20. The instrument used to measure electric current is
- Ammeter
 - Electrometer
 - Galvanometer
 - Spectrometer
21. Which is the outermost planet in the solar system?
- Mercury
 - Pluto
 - Neptune
 - Uranus
22. Entomology is the science that studies
- Behaviour of human beings
 - Insects
 - The origin and history of technical and scientific terms
 - The formation of rocks
23. Escape velocity of a rocket fired from the earth towards the moon is a velocity to get rid of the
- Earth's gravitational pull
 - Moon's gravitational pull
 - Centripetal force due to the earth's rotation
 - Pressure of the atmosphere
24. Which is not a Pass in East Sikkim?
- Jelep la
 - Batang la
 - Chiwabhanzang
 - Nathula
25. Which of these freedom fighters was a part of the trio 'Lal Bal Pal'?
- Lal Bahadur Shastri
 - Lala Lajpat Rai
 - Gopal Krishna Gokhale
 - Lala Hardayal
26. The light has gone out of our lives...". Who said this on Gandhi's death?
- Madan Mohan Malviya
 - Jawaharlal Nehru
 - Dr Radha Krishnan
 - Bal Ganga Dhar Tilak.

27. Whom Gandhiji declared as his political heir?
- Vinobha Bhave
 - J. L. Nehru
 - C. Rajagopalachari
 - Sardar Patel
28. When was the historic Indo-Chinese trade route through Nathula re-Opened?
- 2006
 - 2007
 - 2008
 - 2009
29. Guwahati High Court is the judicature of
- Nagaland
 - Arunachal Pradesh
 - Assam
 - All of the above
30. How long does it take for light from the Sun to reach Earth
- 1 minute
 - 8 minute
 - Instantaneous
 - 24 hours
31. Garampani sanctuary is located at
- Junagarh, Gujarat
 - Diphu, Assam
 - Kohima, Nagaland
 - Gangtok, Sikkim
32. South Indian temples have
- tall towers with curving sides that taper at the top
 - gateway towers shaped like trapezoidal pyramids
 - both are correct
 - None of the above
33. The architecture of the city of Cochin in Kerala reflects the influence of...?
- The British
 - The Portuguese
 - The Dutch
 - All of the above

34. Ecology deals with
- Birds
 - Cell formation
 - Relation between organisms and their environment
 - Tissues
35. What do we call a collection of two or more computers that are located within a limited distance of each other and that are connected to each other directly or indirectly?
- Internet
 - Intranet
 - Local Area network
 - Wide Area Network
36. Sikkim Public Service Commission was established in the year:
- 1977
 - 1978
 - 1980
 - 1981
37. The air we inhale is mixture of gases. Which of the following gas in the mixture is highest in percentage?
- Carbon dioxide
 - Nitrogen
 - Oxygen
 - Ozone
38. Which of the gas is not known as green house gas?
- Methane
 - Nitrous Oxide
 - Carbon dioxide
 - Hydrogen
39. Name the oldest hydel Power project in Sikkim.
- Rothak HEP
 - Jali Power house
 - Lower Lagyap HEP
 - Kalez Khola HEP
40. Who is the Chairman of District Planning Committee?
- District Planning Officer
 - Zilla Adhyaksha
 - District Collector
 - Chief Minister

41. First Population Census of Sikkim was done in the year
- 1861
 - 1871
 - 1881
 - 1891
42. People who secretly indulge in anti-national or anti-government activities and help the enemy are called
- Second column
 - Third column
 - Fourth column
 - Fifth column
43. The ozone layer restricts
- Visible light
 - Infrared radiation
 - X-rays and gamma rays
 - Ultraviolet radiation
44. If force is expressed in Newton and the distance in metre, then the work done is expressed in
- Joule
 - Kg. Wt
 - Kg wt m
 - Watt
45. Friction can be reduced by changing from
- sliding to rolling
 - rolling to sliding
 - potential energy to kinetic energy
 - dynamic to static
46. This type of structural steel drawing shows all dimensions necessary for fabrication:
- Shop drawings
 - Design drawings
 - Weldment drawings
 - Application drawings
47. Sikkim merger with the union of India in the Year 1975 by the constitution amendment No.?
- 36.
 - 37.
 - 38
 - 39

48. In India the Governor of the states are appointed by _____?

- a. The Prime Minister
- b. The Parliament
- c. The Chief Ministers
- d. The President

49. Which foreign influence is seen in the rock cut architecture of India?

- a. Arabic
- b. Persian
- c. Indo-European
- d. Greek.

50. When did Sikkim cede Darjeeling to the British?

- a. 1757
- b. 1805
- c. 1835
- d. 1857

1.a) Fill in the following blanks with appropriate word(s): (5x1=5)

1. Minimum crushing strength of 1st class brick is _____ kg/ cm³
2. Cement bags must be stored on platforms raised at least _____ mm from ground.
3. _____ sand is used for filling in plinth/ foundation.
4. Steel reinforcement weighs _____ kg/ cu m.
5. The thickness of dividing strip for terrazzo flooring should not be less than _____ mm.

b) For a construction work, 50 cum of 250 mm thick brickwork (1:4) in superstructure is estimated. Prepare a suitable estimate of material requirement for the work. Assume any necessary data suitably. 20

2. (a) What are the major differences between 'Centreline Method' and Long and Short wall Method of Estimating. 4

(b) Mention the measurement unit of the following items: 1x6=6

(i) Plastering (ii) Expansion joint (iii) Collapsible gate (IV) Rain water pipe (v) Rolling shutter

(vi) Damp proof course

c) What are the advantages of a flat slab floor compared to conventional RCC floor? 5

d) What do you mean by earthquake resistant building. 5

e) Write notes on under ream piles. 5

3. (a) Draw section of a typical staircase in 1:25 scale and define the following parts:

Going, nosing, stringer beam, newel post, rises. 20

(b) What is the difference between a One-way and Two-way RCC slab in terms of structural principles. 5

4. What do you understand by Building by-laws. What are the necessary items mentioned in the bylaws. Validate your answer with example from any municipal by laws known to you. 5+5=10

Design a two storey residential building of total 300sqm in a plot facing a road 6m wide. Plot size is 10m(road facing)x20m (depth). Road is on eastern side. Assume other characteristics as you feel necessary.

Drawings should be self explanatory and true to adopted scale.

40

5. a) Describe the concept and salient features of 'Stupa' during Buddhist era of India with suitable examples.

5

b) Explain the concept of 'Chaitya' and 'Vihara' with neat sketches. Describe the evolution of these two elements in planning of 'Ajanta', Maharashtra.

4+4=8

c) "Rock cut architecture is translation of timber structure"-explain with example.

5

d) Describe with sketches salient features of Chinese garden.

7

6.a) The following are the observed bearings of the lines of a traverse ABCDEA with a compass at a place where local attraction was suspected.

| Line | Fore Bearings (FB) | Back Bearings (BB) |
|------|--------------------|--------------------|
| AB | 191°45' | 13°0' |
| BC | 39°30' | 222°30' |
| CD | 22°15' | 200°30' |
| DE | 242°45' | 62°45' |
| EA | 330°15' | 147°45' |

Find the correct bearings of the lines

10

b)Write short notes on following:- (3x5)

i)Basic Wind Speed ii)Gust iii)prestressed concrete iv)Differences between straight and curved beam v)Composite beam vi)Lap joint and Butt Joint in rivet construction.

Section-B

7.(a) Explain the natural factors responsible for decay and threat to built heritage of a region.

4

(b) Explain the major causes of decay of stone structures.

8

c)What are the different types of welding ? Discuss about advantages of welding over riveted construction.

8

d)Explain with sketches the details of a timber formwork for a square column and rectangular beam.

10

8.a) Describe different steps in Project Management.

10

b)What is day lighting and your perception of daylight harvesting. Write down recommended minimum daylight factor for i)Dwelling ii)Offices iii)Libraries and Hospitals.

10

c) Define human Settlement. Describe the evolution of Human Settlement during Vedic age Indus Valley Civilisation. 10

9.a) What is meant by "Green Building"? Mention the salient features of Green Rating system. 5+5

b) Discuss the measures those are recommended by National Building Code for noise control with respect to site planning and internal planning for educational buildings. 6

c) Write short notes on any two of the following. (7x2=14)

i) Noise criteria curves ii) Acoustic design criteria for an auditorium iii) Highway noise barriers

10. a) An old palace has to be converted to a heritage hotel to continue its relevance in present context. Explain about the list of studies to be undertaken and the interventions necessary to accommodate the change of use in structure. 15

b) Explain the values associated with architectural conservation. 7

c) Explain the relevance of transfer of Development rights and public private partnership in promoting heritage conservation in large cities like Gangtok. 8

11.a) Define air pollution. Mention the sources and characteristics of air pollutants in cities like Gangtok along with measuring units. Mention non engineering process of removal of air pollution. 1+2+4=7

b) Classify different types of solid waste. Mention the sources and characteristics of municipal solid waste. Describe briefly sanitary landfill method of solid waste disposal. 1+3+3=7

c) Illustrate with sketches a septic tank to serve an isolated residence in outskirts of Gangtok. The number of inmates are 30 and rate of water supply is 135 lpcd.

Suggest appropriate method of disposal of septic tank effluents. 10+3=13

d) Write notes on one pipe system plumbing. 3

Q12.a) Write about scope of Landscape Architect, planner, contractor 3x5=15

b) Write about the steps to be followed in landscaping of a primary school for physically challenged children as well as normal children. 15