NIRMALA MATHA CENTRAL SCHOOL, THRISSUR

CLASS VIII

QUESTION BANK

TERM I

2022-23

English

UNIT - 1

Section 1

My Big Brother

1. What were the elder brother's thoughts and reactions to failing for the first and second time?
2. Explain the relationship of the brothers in the story.
3. What was the differences in the routines of the two brothers?
4. The elder brother was not good at academics. How does the narration convey this?
5. Do you think that the elder brother had to suppress his desires to be a role model to his younger brother? Why do you think so?

Section 2

A Most Important Person

1. What was Miss Lucy wishing for and why?
2. In what ways is the friendship between Miss Lucy and Chester unusual and remarkable?
3. What was wrong with the way Miss Lucy had been brought up?
4. Does the story teach us something important about friendship?
5. In the end, why does Miss Lucy think that Christmas in the most important time?

Section 3

Somebody's Mother

1. What kind of a woman do you find in this poem?
2. Where was the woman standing? Why was she standing there?
3. Why was the woman very anxious?
4. What are the children compared to?
5. Did the boys lend the old woman a helping hand?

UNIT 2

A Day In The Country

1. Why was Fyokla looking for Terenty?
2. Why does no one answer her questions, where is Terenty?
3. What is the immediate reaction of Danilka when he sees Terenty?
4. What is effect of rain on the ant heap?
5. What does Terenty do when he sees the sleeping children in the barn?
6. Write a character sketch of Terenty.

Section 2

Elephants Ride the Kitchen

1. How old was Tuskless?
2. What was the disastrous scene seen by the narrator on 4 Nov 1978?
3. Who is Masaku?

Section 3

I Think I Could Turn and Live with Animals

1. Why does the poet wish to live with animals?
2. About what do the animals not whine and weep?

3. How does the poet react to man's ways? Why?
4. How are animals better than man?
5. Mentions 3 things that animal dont and humans do?

UNIT 4

Section 1

Pocahontas

1. Why was Pocahontas taken captive in 1613?
2. What challenges did Pocahontas face?
3. What is the nationality of the settlers?
4. What happened in the year 1616?
5. Why was Pocahontas sent to live with the Potomac tribe?

Section 2

Can We Change This?

1. What discrimination did the narrator face?
2. How was the new system different?
3. How does the author introduce herself in the story?
4. Who was Annan? Why was he a noted figure in the story?

Section 3

Refugee Blues

1. What is the message of the poem Refugee Blues?
2. What is the tone of the speaker in Refugee Blues?
3. What type of poem is Refugee Blues?
4. What is the irony of the poem?
5. Where did the poet go at the end?
6. What did he see in his dream?
7. How does the poet feel?

പാഠം 1

സൗന്ദര്യലഹരി

1. പച്ചിലച്ചാർത്തിൻ പഴുതിലൂടെ പശ്ചിമാംബരത്തിൽ കവി കാണുന്നതെന്താണ്?
2. കിഴക്കേദിക്കിൽ സിന്ദൂരം പൂശി പൂവിനെ ചിരിപ്പിച്ചുകൊണ്ട് വന്നെത്തുന്നത് എന്ത്?
3. മുല്ലമൊട്ടുകൾ എന്ന കവി വിശേഷിപ്പിക്കുന്നത് എന്തിനെയാണ്?
4. വാർമതിയൊഴുക്കുന്ന പൂനിലാവിൽക്കുളിച്ചെത്തുന്നത് ആര്?
5. സൗരഭോന്മാദം പൂണ്ട് തരുക്കളെ തഴുകുന്നത് ആര്?
6. "അന്തരംഗാന്തരം' എന്ന പദംകൊണ്ട് അർഥമാക്കുന്നത് എന്ത്?
7. അരണ്യത്തിലെ പൂഞ്ചോലകൾ ഒഴുകുന്നത് എങ്ങിനെ?
8. തേനീച്ചകൾ മുരളുന്നത് എവിടെ?
9. പല്ലവാകുലമായ ചില്ലക്കൈയുകളാട്ടി നൃത്തം ചെയ്യുന്നത് ആര്?
10. സൗന്ദര്യലഹരി എന്ന കവിത എഴുതിയത് ആര്? കൃതി?

പാഠം 2

കുട നന്നാക്കാനുണ്ടോ?

1. കതകു തുറന്നപ്പോൾ കേട്ട ചോദ്യം എന്തായിരുന്നു?
2. 'അക്ഷോഭ്യനായി അയാൾ പറഞ്ഞു' - പറഞ്ഞത് എന്താണ്?
3. പഴയകുടയുടെ വിലയായി അയാൾക്ക് കിട്ടിയത് എന്ത്?
4. വർഷംതോറും വർധിച്ചുവരുന്നത് എന്ത്?
5. മാനേജർ എന്തിനെക്കുറിച്ചായിരുന്നു പ്രസംഗിച്ചിരുന്നത്?
6. എന്നെക്കുറിച്ച് പഠിപ്പും 'പരിചയവുമില്ലാത്തവൻ എന്ന അവജ്ഞ എനിക്കു തോന്നിയില്ല' എന്തുകൊണ്ട്?
7. മുതലാളിയുടെ ഉപദേശം എന്തായിരുന്നു?
8. ആ ചോദ്യം എന്റെ മനസ്സിൽ പരാജയഭീരുവാക്കിതീർത്തു ഏതു ചോദ്യം?
9. നാലുവശത്തേക്കും നോക്കി ആരുമില്ലെന്നു ബോധ്യം വന്നപ്പോൾ അയാൾ വിളിച്ചുപറഞ്ഞത് എന്ത്?
10. ബാലകഥകൾ എന്ന ചെറുകഥ എഴുതിയത് ആര്?

പാഠം 3

യാത്രാമൊഴി

1. ഇപ്പോൾ ഭുജിപ്പാൻ സമയമില്ല എന്ന് ശ്രീരാമൻ പറയാൻ കാരണമെന്ത്?
2. പിതാവ് വരം നൽകിയിരിക്കുന്നത് ആർക്കാണ്?
3. എത്ര വർഷമാണ് രാമന് വനവാസം കൽപിച്ചിരുന്നത്?
4. ശ്രീരാമന്റെ വാക്യം കേട്ട് പാരിൽ മോഹിച്ച് വീണത് ആരാണ്?
5. രാമൻ വനവാസത്തിന് പോയാൽ കൗസല്യ എവിടെ പോകുമെന്നാണ് പറഞ്ഞത്?
6. "സന്താപമേതും മനസ്സിലുണ്ടാകാതെ
   സന്തുഷ്ടയായ് വസിച്ചീടുക മാതാവും" ആരുടെ വാക്കുകളാണിത്?
7. "പൈതലെ വേർവിട്ടുപോയ പശുവിനുള്ളാധി പറഞ്ഞറിയിച്ചീടരുതല്ലോ" - ആരുടെ വാക്കുകൾ?
8. താതനായ ദശരഥന്റെ നിയോഗം എന്തായിരുന്നു?
9. താതന്റെ നിയോഗമനുസരിച്ച് രാമൻ വനവാസത്തിന് പോയാൽ കൗസല്യ എന്ത് ചെയ്യുമെന്നാണ് പറയുന്നത്?
10. കിളിപ്പാട്ടു പ്രസ്ഥാനത്തിന്റെ ഉപജ്ഞാതാവാര്?

പാഠം 4

രാഷ്ട്രപുനർ നിർമ്മാണത്തിൽ വനിതകളുടെ പങ്ക്

1. ഐക്യം വന്ന ഒരു ജനം അതിവസിക്കുന്ന രാജ്യമാണ്?
2. ഇന്ത്യൻ രാഷ്ട്രസങ്കല്പം ഉരുത്തിരിഞ്ഞത് എങ്ങനെ?
3. ഏത് മനഃശാസ്ത്രത്തിൽ കീഴിലാണ് ഭാരതം വളർന്നുവന്നത്?
4. ആദ്യകാലങ്ങളിൽ വ്യക്തി എന്നത് എന്തായിരുന്നു?
5. പൗരാവകാശം ചുറ്റിക്കറങ്ങി നിന്നിരുന്നത് എന്തിലെല്ലാമായിരുന്നു?
6. ജാതീയവും സാമ്പത്തികവുമായ വലയത്തിൽ ചുറ്റിക്കറങ്ങിനിന്ന പൗരാവകാശത്തിന് മാറ്റം വന്നത് ആരുടെ കാലത്താണ്?
7. ഗുണത്രയങ്ങൾ എന്തെല്ലാം?
8. തപസ്യപോലെ പാവനമായ പൗരധർമ്മനിർവഹണമായി സ്ത്രീകൾ കണ്ടത് എന്തിനെ?

9. ഏതെല്ലാം പദങ്ങളിലാണ് സ്വാതന്ത്ര്യസമരകാലത്തെ അടിസ്ഥാനപ്രമാണങ്ങളെ നിർവ്വചിച്ചത്?
10. രാഷ്ട്രപുനർനിർമ്മാണത്തിൽ വനിതകളുടെ പങ്ക് എന്ന ലേഖനം എഴുതിയതാര്?

പാഠം 5

ജാതി ചോദിക്കുന്നില്ല ഞാൻ സോദരി

1. ഭിക്ഷു ചണ്ഡാലപ്പെൺകൊടിയോട് ആവശ്യപ്പെട്ടതെന്ത്?
2. ഭിക്ഷുവിന്റെ അർഥന കേട്ടപ്പോൾ പെൺകുട്ടി അമ്പരക്കാൻ കാരണമെന്ത്?
3. "ഓതിനാൾ ഭിക്ഷുവേറ്റം വിലക്ഷനായ്" എന്താണ് ഭിക്ഷു പറഞ്ഞത്?
4. ആരുടെ മകളാണ് ചണ്ഡാലി?
5. ചണ്ഡാലിയുടെ പാളയിൽ നിന്ന് ജലം തുളുമ്പാൻ കാരണമെന്ത്?
6. ഭിക്ഷു ഏതുപോലെ സുന്ദരനാണ്?
7. പിന്നെത്തർക്കം പറഞ്ഞില്ല ഓമലാൾ. എന്തുകൊണ്ട്?
8. കവി വെള്ളത്തെ എന്തിനോടാണ് ഉപമിച്ചിരിക്കുന്നത്?
9. ചണ്ഡാലി കൊടുക്കുന്ന ഓരോ തുള്ളി വെള്ളവും എന്തായി തീരട്ടെ എന്നാണ് കവി ചിന്തിക്കുന്നത്?
10. ആധുനിക കവിത്രയങ്ങൾ ആരെല്ലാമാണ്?

പാഠം 6

കാട്ടിലേക്ക് പോകല്ലേ കുഞ്ഞേ!

1. 'ഉമ്മാക്ക് നൊസ്സാണ്' അവർ ഈർഷ്യയോടെ അകത്തേയ്ക്ക് പോയ്ക്കളഞ്ഞു. ആരാണ് പറഞ്ഞത്?
2. ഇനി വീടിനൊരു വൃത്തിയും വെടിപ്പുമുണ്ടാകും എന്ന് കഥാകൃത്ത് ചിന്തിക്കാൻ കാരണമെന്ത്?
3. എന്ത് ഓർത്താണ് കഥാകൃത്ത് ചിരിയടക്കി കിടന്നത്?
4. കോഴികളെ കളിയാക്കി കഥാകൃത്ത് വിളിച്ചിരുന്നത് എന്താണ്?
5. റപ്രസന്റേറ്റീവായി വന്ന ആളോട് ഉമ്മ ചോദിച്ചത് എന്തായിരുന്നു?

6. ചൂളിനിൽക്കുന്ന അവനുമുന്നിൽ ഉമ്മയുടെ രണ്ടാമത്തെ ചോദ്യം എന്തായിരുന്നു?
7. കച്ചവടക്കാരന്റെ മൾട്ടി നാഷണൽ കമ്പനി ഒന്നുമല്ലാതായി എപ്പോൾ?
8. ആരുടെ നിഴലനക്കം കണ്ടാലാണ് ഉമ്മ കോഴിക്കുഞ്ഞുങ്ങളെ മുഴുവൻ കൂട്ടിനകത്താക്കുന്നത്?
9. ഉമ്മയുടെ മൂന്നു മക്കൾ മരിച്ചത് എങ്ങനെയാണ്?
10. വീട്ടിലെ നിത്യസന്ദർശകനായി മാറിയത് ആര്?
11. ഉമ്മയുടെ സകലമാന ശ്രദ്ധയേയും തോൽപിച്ച് കൊണ്ട് കോഴിക്കുഞ്ഞുങ്ങളെ കൈക്കലാക്കുന്നത് ആരെല്ലാം?
12. ഉമ്മ കരിമീനോട് രഹസ്യമായി ചോദിച്ചത് എന്ത്?
13. കളവുമുതൽ കണ്ടുപിടിക്കപ്പെട്ട കുട്ടിയെപോലെ ഉടൻ കുറ്റം സമ്മതിച്ചത് ആര്?
14. ബസ്സിന്റെ പിറകിലെ സീറ്റിൽ ഞെരുങ്ങിയിരിക്കുമ്പോഴും കഥാകൃത്തിന്റെ ചിന്ത എന്തായിരുന്നു?
15. കഥാകൃത്തിന്റെ അടുത്ത് വന്നിരുന്ന ഗവേഷണ വിദ്യാർത്ഥിയുടെ വിഷയം എന്തായിരുന്നു?
16. സത്യത്തിൽ തനിക്കും അദ്ദേഹത്തിനും ഇടയിൽ ഈ നശിച്ച കോഴിയില്ലായിരുന്നെങ്കിൽ അവർ എന്തിനെക്കുറിച്ചായിരിക്കും സംസാരിക്കുക.
17. തന്റെ കൂടപ്പിറപ്പായി കഥാകൃത്ത് കാണുന്നത് എന്ത്?
18. ശത്രുവിനെ കണ്ടാൽ മനസ്സിലാവുന്നത് ആർക്കെന്നാണ് ഉമ്മ പറയുന്നത്?
19. സന്ദർഭത്തിന് ഒട്ടും യോജിക്കാത്തവിധത്തിൽ പൊട്ടിക്കരഞ്ഞ് ഉമ്മ പറഞ്ഞതെന്ത്?
20. 'കാട്ടിലേക്ക് പോകല്ലേ കുഞ്ഞേ!' എഴുതിയതാര്?

പാഠം 7

വലുതാവണം

1. മകൻ കൂടെ കൂടെ ചോദിക്കുന്നത് എന്ത്?
2. "ഞാനുമിച്ചോദ്യമേ ചോദിച്ചിട്ടുണ്ടാവാം" ഏതു ചോദ്യമായിരിക്കാം കവയിത്രി ചോദിച്ചിട്ടുണ്ടാവുക?
3. മേല്പോട്ടു മേല്പോട്ടു മർത്ത്യനെയുന്തുന്നത് എന്താണ്?
4. വിശ്വവിധാനത്തെ ഊതിവലുതാക്കുന്ന ശ്വാസവായു ഏത്?
5. ഊഴിയിൽ വീണ നിമിഷത്തിൽ തന്നെ മനുഷ്യൻ കാൽപൊക്കുന്നത് എന്തിന്?
6. എന്താണ് കാലചക്രം കാണിക്കുന്നത്?
7. പകലോരോന്നും പ്രപഞ്ചമഹാനദി നീന്തിക്കടക്കുന്നത് എന്തിനു വേണ്ടിയാണ്?
8. ആദിസൗഭാഗ്യത്തെ തപ്പിപ്പിടിക്കാൻ ആഴിയിൽ മുങ്ങുന്നത് ആര്?
9. ആകാശച്ചില്ലയിൽ പ്രതിഫലിക്കുന്ന സൂര്യബിംബത്തെ കവി എന്തിനോടാണ് ഉപമിക്കുന്നത്?
10. അമ്മ ആശിക്കുന്നത് എന്ത്?

HINDI

पाठ - 1

ध्वनि

1. अभी-अभी कौन आया है?
2. हरा-हरा क्या है?
3. क्या मृदुल बना हुआ है?
4. तंद्रालस कहाँ छिपा है?
5. कवि का नाम लिखो।
6. क्या जगने वाला है?
7. पुष्प से क्या खींच लेंगे?
8. क्या सींच देंगे?
9. पात का रंग क्या है?
10. क्या दिखा दूँगा?
11. दो संज्ञा शब्द लिखो।
12. दो विशेषण शब्द लिखो।
13. पौधे के पाँच भाग लिखो।
14. प्रकृति में हरि दिखने वाली तीन चीज़ों के नाम लिखो।
15. ध्वनि का समान शब्द लिखो।
16. डालि शब्द का समान शब्द लिखो।
17. तीन फूलों के नाम लिखो।
18. क्रियाओं को छाँटकर लिखो।
19. 'कलियाँ' - वाक्य बनाओ।
20. 'मृदुल' - वर्ण-विच्छेद करो।

पाठ - 2

लाख की चूड़ियाँ

1. मकान के सामने कौनसा वृक्ष था?
2. कौन अच्छा आदमी था?
3. गोलियाँ कैसी थी?
4. वस्तु विनिमय क्या है?
5. बदलू का पौतृक पेशा क्या था?
6. बदलू लला को क्या क्या देता?
7. बदलू घर में किसपर बैठा था?
8. लला का नाम क्या था?
9. आजकल सब काम कैसे होता है?
10. लेखक का नाम लिखो।
11. गोलियाँ कौन बनाता था?
12. भट्ठी कैसी थी?
13. भट्ठी में क्या पिघलाया करता?
14. विभिन्न आकार के क्या रखे गए थे?
15. बदलू किसपर बैठता था?
16. शादी के जोडे के बदले बदलू को क्या मिलता?
17. बदलू को किस चीज़ से नफरत थी?
18. शहरी स्त्रियों की कलाइयाँ कैसी थी?
19. बदलू लला के लिए क्या बचाकर रखता?
20. बदलू के कौनसी फसल थी?
21. कौन फिसलकर गिर गई?
22. किसने उसकी मरहम-पट्टी की?

23. गाँव में किस चीज़ का प्रचार हो गया?
24. बदलू का शरीर कैसा था?
25. बदलू के माथे पर क्या थी?
26. रज्जो लला के लिए क्या लाए?
27. लाख का आखिरी जोड़ा किसने पहना था?
28. दो संज्ञा शब्द निकालो।
29. रज्जो आम कैसे लाई?
30. कब गाय बेच दी?

पाठ - 3

बस की यात्रा

1. बस क्या है?
2. पन्न से सत्ना के लिए बस कितने घंटे बाद मिलती है?
3. कहाँ जाने की ट्रेन मिला देती है?
4. गांधीजी की २ आंदोलनों के नाम लिखो।
5. पेड़ पर कौन बैठे थे?
6. झील देखकर क्या लगता था?
7. पुलिया के ऊपर क्या हुआ?
8. बस किस रफतार से चल रही थी?
9. "बस तो फर्स्ट क्लास है जी" किसने किससे कहा?
10. लेखक का नाम लिखो।
11. बस किस बात की योग्य थी?
12. बस कंपनी के कौन बस में थे?
13. नयी नवेली बसों से ज्यादा विश्वसनीय कौन है?

14. सीट के नीचे क्या मेहसूस हुआ?
15. पेट्रोल की टंकी में क्या हो गया?
16. ड्राइवर ने पेट्रोल कहाँ निकाला?
17. चाँदनी कैसी थी?
18. धीरे-धीरे बस की आँखों को क्या हुआ?
19. पुलिया पर बस स्पीड़ में होती तो क्या होता?
20. "वह महान आदमी आ रह है" किसने किससे कहा?
21. कैसा टायर लगाकर बस फिर चली?
22. इत्मीनान से बैठकर क्या शुरु हो गया?
23. कितने दोस्त यात्रा पर निकले?
24. २ संज्ञा छाँटकर लिखो।
25. २ विशेषण छाँटकर लिखो।
26. 'निकल जाओ, बेटी।' किसने किससे कहा?
27. जो छोड़ने आए थे, वे कैसे देख रहे थे?
28. एक मित्र कौन था?
29. 'पक्षी' का समान शब्द लिखे।
30. चाँद का पर्याय शब्द लिखे।

पाठ - 5

दीवानों की हस्ती

1. कवि का नाम लिखो।
2. क्या बनकर आए?
3. क्या बनकर लौट चले?
4. यहाँ किसके बारे में कहा गया है?
5. क्या छककर पीते है?

पाठ - 6

भगवान के डाकिए

1. कवि का नाम लिख्रो।
2. डाकिए का काम क्या है?
3. उनकी वर्ण का रंग लिख्रो।
4. वह क्या लाता है?
5. भगवान के डाकिए कौन है?
6. पक्षी और बादल कौन है?
7. एक महादेश से कहा जाते है?
8. एक महादेश से दूसरे महादेश कौन जाते है?
9. उनकी चिट्ठियाँ कौन बाँचते है?
10. एक देश की धरती दूसरे देश को क्या भेजती है?
11. कौन किसे सुगंध भेजती है?
12. क्या हवा में तैरते है?
13. सौरभ कहाँ तैरते है?
14. सौरभ किनके पाँख्रों पर तिरता है?
15. एक देश का भाप कहाँ गिरता है?
16. एक देश का भाप वहाँ क्या बनकर गिरता है?
17. भाप कहाँ से कहा जाता है?
18. भाप क्या बन जाता है?
19. समान शब्द : देश, चिट्ठी
20. पर्याय - पक्षी, बादल, पानी
21. डाकिए बन पक्षियों के चित्र ख्रींचों।
22. कौनसे पक्षी डाकिए बन सकते है?

पाठ - 14

अकबरी लोटा

1. किसे पैसे चाहिए थे?
2. कितने पैसे चाहिए थे?
3. किसे पैसे देने थे?
4. कौन सहायता करने तैयार था?
5. दुकानों से महीने भर कितना किराया आता?
6. झाऊलाल के मित्र का नाम क्या था?
7. वह पैसे कहाँ से लाए थे?
8. लोटा क्यों लाया गया?
9. लोटा कहाँ गिरा?
10. गलि में कौन इकट्ठा हुए?
11. पत्नी लोटे के साथ क्या लाना भूल गई?
12. गिरने से पूर्व लोटा कहाँ टकराया?
13. बिलवासी ने अंग्रेज को कहाँ बिठाया?
14. 'डेंजरस ल्यूनाटिक' - किसने किससे कहा?
15. 'डेजरस क्रिमिनल' - किसने किससे कहा ?
16. कहा रिपोर्ट लिखवाने की सलाह दी?
17. बादशाह हुमायूँ किससे हारकर भागे थे?
18. ब्राहमण को कितने सोने के लोटे दिए?
19. लोटा गिरते वक्त अंग्रेज क्या कर रहा था?
20. लोटा कितने में बेचे?
21. मेजर डगलस कौन है?

22. उनके पास क्या है?
23. नूरजहाँ के किस भावना पर जहाँगीर न्योहावर हुए?
24. बिल्लोंर की हाँडी में क्या टँगा रहता?
25. अंड़ा कितने में ख़रीदे?
26. किससे अंडा ख़रीदे?
27. बिलवासी क्या लपेट कर चारपाई पर पड़े रहे?
28. लेख़क का नाम क्या है?
29. दूसरे दिन कब तक वे सोए रहे?
30. पाठ का नाम क्या है?

Science- Physics

L-11

FORCE AND PRESSURE

I. Choose the correct answer.

1. A ..... exerted by an object on another is a force.
   a) push or pull b) contact or non-contact force
   c) pressure d) magnitude
2. Force changes the
   a) motion of body b) speed of body
   c) shape of body d) all of these
3. Two boys A and B are applying force (pull) on a block. If the block moves towards the boy A, which one of the following statements is correct?
   a) Magnitude of force applied by A is greater than that of B
   b) Magnitude of force applied by A is smaller than that of B.
   c) Net force on the block is towards B
   d) Magnitude of force applied by A is equal to that of B.
4. Whe 2 foreces act in opposite directions, then net force acting in the
   a) Sum of 2 forces b)difference between 2 forces
   c) both of these d) none of these
5. The strength of force is expressed by its
   a) weight b) mass
   c) magnitude d) longitudinal force
6. Leaves fall down on the ground due to
   a) electrostatic force b) magnetic force
   c) gravitational force d) musculas force

7. State of motion is described by

   a) position of rest b) position of motion

   c) both by the state of rest or motion d) none of these

8. When the hammer strikes the gong of an electric bell, which of the following force is responsible for the movement of hammer?

   a) Gravitational force alone b) Magnetic force alone

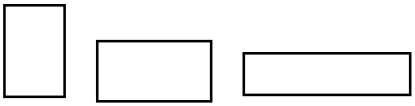
   c) Electrostatic force along d) Frictional force alone

9. Which one of the folloiwng forces is a contact force?

   a) Force of gravity b) Magnetic force

   c) Force of friction d) electrostatic force

10. A brick is kept in three different ways on a table as shown in given figure. The pressure exerted by the brick on the table will be



A B C

   a) Maximum in position A b) Maximum in position C

   c) Maximum in position B d) Equal in all cases.

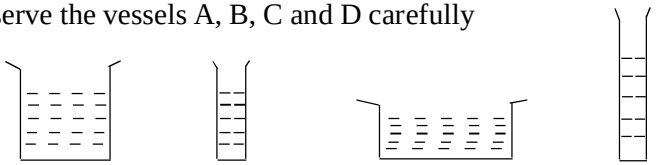
II. Answer the following.

11. A chapati maker is a machine which convertes balls of dough into chapati. What effect of force comes into play in this process?

12. It is difficult to cut cloth using a pair of scissors with blunt blades. Explain.

13. It is much easier to burst an inflated balloon with a needle than by a finger. Explain.

14. Observe the vessels A, B, C and D carefully



(A) 300 ml (B) 50ml (C) 500 ml (D) 60 ml

The volume of water taken in each vessel is as shown. Arrange them in the order of decreasing pressure at the base of each vessel. Explain.

15. Name the quantity whose unit is Newton(N).
16. Give one example where force changes the shape of an object.
17. What type of pressure is involved in the filling of a liquid in a syringe?
18. What force acting on, an area of $0.5m^2$ will produce a pressure of 500pa?
19. What is a rubber sucker? How does it work? State any one use of a rubber sucker.
20. Why do mountaineers usually suffer from nose bleeding at high altitudes?
21. Explain why, wooden (or concrete) sleepers are kept below the railway line.
22. Explain why, a wide steel belt is provided over the wheels of an army tank.
23. Explain why, snow shoes stop you from sinking into snow.
24. What is meant by a contact force? Explain different types of contact forces?
25. What is meant by a non-contact force? Explain with the help of examples.
26. Define pressure. What is the relation between pressure, force and area? State the units in which pressure is measured?

27. What is meant by atmospheric pressure? What is the cause of atmospheric pressure?
28. Why are our bodies not crushed by the large pressure exerted by the atmosphere?
29. Explain why, atmospheric pressure decreases as we go higher up above the Earth's surface?
30. How does the pressure of a liquid depend on its depth? Draw a labelled diagram to show that the pressure of a liquid (water) depends on its depth.
31. Explain why the walls of a dam are thicker near the bottom than at the top.
32. Mention the necessary condition for a force to come into play.
33. In brief manner, explain the change in the state of motion.
34. Write the SI unit of pressure.
35. Give an activity to show that pressure in a liquid increases with depth.
36. Describe an activity to show that a liquid exerts equal pressure in all the direction at a given depth.
37. The rear wheels of a tractor are very wide. Explain with reason.
38. Explain and demostrate the effect of electrostatic force.
39. When is the pressure on the ground more? When a man is lying or when a man is standing? Explain.
40. A force of 200N is applied to an object of square shape of side 2m. Calculate the pressure.
41. Where do we apply a force while walking?
42. A girl is pushing a box towards east direction. In which direction should her friend push the box so that it moves faster in the same direction?

43. Does the force of gravitation exist between 2 astronauts in space?
44. Write the effects of force when applied on a body.
45. The base of a container messures 15 m x 20 m. It is placed on a table top. If the weight of the container is 60N. What is the pressure exerted by the container on the table top?
46. When do we use the term net force?
47. Explain how to find net force.
48. A gas filled balloon moves up. Is the upward force acting on it larger or smaller than the force of gravity?
49. Define electrostatic force.
50. Define force.

L-12

FRICTION

I. MCQ

1. Which of the following produces less friction?
   a) Sliding friction b) Rolling friction
   c) Composite friction d) Static friction
2. Friction always
   a) opposes the motion b) helps the motion
   c) both (a) and (b) d) none of these
3. Friction can be reduced by using
   a) oil b) grease c) powder d) all of these
4. Whenever the surfaces in contact tend to move or move with respect to each other, the force of friction comes into play.
   a) only if the objects are solid
   b) only if one of the 2 objects is liquid.

c) only if one of the 2 objects is gaseous

d) irrespective of whether the objects are solid, liquid or gaseous.

5. To sharpen the blade of a knife by rubbing it against a surface, which of the following will be most suitable?

   a) stone b) plastic block

   c) wooden block d) none of these

6. Friction is

   a) toe b) friend c) both (a) and (b) d) none of these

7. A toy car released with the same initial speed will travel farthest on

   a) muddy surface b) polished marble surface

   c) concreted surface d) brick surface

8. Force of friction depends on

   a) roughness of surface b) smoothness of surface

   c) inclination of surface d) all of these

9. Fluids are

   a) liquids b) gases c) both (a) and (b) d) none of these

10. Which of the following is responsible for wearing out of bicycle tyres?

    a) Muscular force b) Magnetic force

    c) Frictional force d) Electrostatic force

11. A matchstick struck on a matchbox catches fire easily because

    a) friction may cause fire b) of chemical reaction

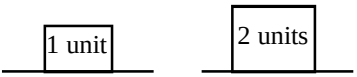
    c) force heated the match stick d) none of the above.

12. Four children were asked to arrange forces due to rolling, static and sliding friction in an increasing order. Their arrangements are given below. Choose the correct arrangement.

a) rolling, static, sliding
b) static, rolling, sliding
c) rolling, sliding, static
d) sliding, static, rolling

II. Answer the following.

13. 2 blocks of iron of different masses are kept on a cemented floor as shown in figure. Which one of them would require a larger force to move it from the rest position? Why?



14. Two boys are riding their bicycle on the same concrete road. One has new tyres on his bicycle while the other has tyres that are old and used. Which of them is more likely to skid while moving through a patch of the road which has lubricating oil spilled over it?
15. Is there a force of friction between the wheels of a moving train and iron rails? If yes, name the type of friction. If an air cushion can be introduced between the wheel and the rail, what effect will it have on the friction?
16. Cartilage is present in the joints of our body. Which helps in their smooth movement. With advancing age, this cartilage wears off. How would this affect the movement of joints?
17. The handle of a cricket bat or a badminton racquet is usually rough. Explain.
18. Explain why the surface of mortar and pestle used for grinding is etched again after prolonged use?
19. When the cutting edge of a knife is put against a fast rotating stone to sharpen it, sparks are seen to fly. Explain the reason.

20. We have 2 identical metal sheets. One of them is rubbbed with sand paper and the other with ordinary paper. The one rubbed with sand paper shines more than the other. Give reason.
21. Two friends are trying to push a heavy load. Suggest a way which will make this task easier for them.
22. Which type of friction comes into play when a book kept on cylindrical pencil is moved by pushing?
23 Why is it more difficult to walk properly on a well-polished floor?
24. What enables us to fix nails in a wall and knots to be tied?
25. Why do gymnasts apply a coarse substance to their hands?
26. Why do Kabaddi players rub their hands with dry soil?
27. Name the device which is used between the hubs and arxles of bicyce wheels to reduce friction.
28. What is the purpose of using ball bearing in machines?
29. Why do we sprinkle fine powder on carrom board?
30. What is drag?
31. Why are grooves provided in the soles of shoes?
32. Explain why sliding friction is less than static friction.
33. Explain the different types of friction.
34. What is meant by rolling friction.
35. Explain why a pencil will write on paper but not on glass.
36. Why is it difficult to light a matchstick by striking it on a smooth surface?
37. What happens when you rub your hands vigorously for a few seconds? Why does this happen?
38. Explain why, sportsman use shoes with spikes?

39. State 2 advantages and disadvantages of friction.
40. What is meant by lubrication? Why is it important?
41. Why are cars, aeroplanes and rockets streamlined?
42. Define friction. What are the factors affecting friction? Explain with examples.
43. What is the cause of friction?
44. Friction is a necessary evil. Why?
45. How can you reduce the drag on something moving through the air?
46. Explain why, objects moving in fluids should have streamlined shape?
47. Explain why, it is easier to drag a mat on floor when nobody is sitting on it. But much more difficult to drag the same mat when a person is sitting on it?
48. What do you mean by sliding friction?
49. Write the factors affecting fluid friction.
50. Explain with 4 examples that sometimes force of friction is desirable.

Chemistry

Chapter-3 Synthetic fibres

I. MCQ

1. The basic component of plant fibres is
   (a) Protein (b) Cellulose (c) Starch (d) Starch
2. Raw materials for preparation of synthetic fibres are obtained from
   (a) Coal (b) Petroleum (c) Natural gas (d) all of these
3. Which of the following is known as artificial silk?
   (a) Nylon (b) Rayon (c) polyester (d) Silk

4. Which fibre is used as artificial wool?

   (a) Acrylic (b) Rayon (c) Nylon (d) Cotton

5. Common variety of polyester is

   (a) Terylene (b) Polymer (c) viscose (d) Spinneret

II. Give <u>one word</u> for the following

1. Plastics that retain their plasticity on repeated heating –
2. Plastics that can resist fire –
3. First fully synthetic fibre –
4. Plastic which gets deformed easily on heating and can be easily bent–
5. Synthetic fibres synthesised from raw materials –

III. Correct the following statements

1. Polymers are made up of many bigger units
2. Polycot is made by mixing two types of fibres namely Polythene + Cotton.
3. The 4R principle is Repeat, Remember, Rejoice and Reduce.
4. Bakelite and Melamine are two examples of Thermoplastics.
5. The coating on modern non-stick cookware and electric iron is Terrycot.

IV. Fill in the blanks

1. ———————— is one type of plastic that can be used to make electrical switches.
2. Pickles are stored in plastic bottles mainly because they are ———————.
3. Polyethylene terephalate belongs to ———————— class of synthetic polymer.
4. Plastics which when moulded once cannot be softened by heating such plastics are called ————.

5. ———————— get decomposed by the action of bacteria.

V. Find the odd one out and give reason

1. Rayon, Jute, Acrylic, Nylon
2. Bakelite, Melamine, Vulcanized Rubber, Poly Vinyl chloride
3. Aluminium, wood, paper, cotton cloth
4. Nylon, Rayon, Teflon, Wool
5. Nylon-66, Terylene, Nylon-6, Rayon

VI. Assertion and Reason type questions

1. Assertion – It is recommended to avoid plastics as far as possible
   Reason – It takes several years to decompose causing environmental pollution
2. Assertion – It is advised not to wear synthetic clothes while working in a laboratory
   Reason – The synthetic fibre melts on heating
3. Assertion - Plastic is not toxic when come in contact with food and medicines
   Reason – Plastics are used world over because they are safe for packing of foods, medicines & child care products.
4. Assertion- Synthetic fibres are stronger than natural fibres Reason- Synthetic fibres are not obtained from plants and animals.
5. Assertion – Most of the synthetic polymers are not biodegradable
   Reason – Poly metrication process induces toxic character in organic molecule.

VII. <u>1 Mark</u> type questions

1. What are plastics?
2. What is plasticity ?

3. What is the advantage of using fabrics made of polyester?
4. What is an ester?
5. Why are Nylon used for making parachutes

VIII. 2 Mark type questions

1. Why is it convenient to store plastic containers?
2. Explain why the following are made of thermosetting plastics.
   (a) Saucepan handles
   (b) Electric plugs/switches/plug boards.
3. Compare any two properties of rayon and acrylic.
4. What is 4R principle?
5. What are thermosetting plastics? Write two eg. With their characteristics.

IX. 3 Mark type questions

1. PVC (Poly vinyl chloride) is a thermoplastic and is used for making toys, chappals etc. Bakelite is thermosetting plastic and is used for making electrical switches, handles of various utensils etc. Can you write the major difference between these two types of plastics.
2. What is Rayon? Why is it called artificial silk? What are the uses of rayon?
3. Of the following materials:
   Cotton, nylon, Terylene, wool, PET, acrylic
   (a) Which materials are polyesters?
   (b) Which materials is a polyamide?
   (c) Which material is used as a substitute for wool?
   (d) Which material is used as a substitute for glass?

4. What is meant by biodegradable and non-bio degradable materials? Give examples of two biodegradable and two non-biodegradable materials.
5. Write any two advantages and one disadvantage of plastics.

Chapter-4

Metals and Non-Metals

I. MCQ

1. Which one of the following metal exists in liquid state?
   a) Mercury b) Sodium c) Potassium d) Carbon
2. Which one of the following metal can be cut with a knife?
   a) Cobalt b) Iron c) Sodium d) Silver
3. The correct statement is
   a) All metals are ductile b) Generally, metals are ductile
   c) All non-metals are ductile d) Some non-metals are ductile
4. When Copper is added to Iron Sulphate solution
   a) Iron is displaced b) SO_4 is displaced
   c) no reaction takes place d) none of these
5. Arrange the following in the order of their decreasing chemical activity
   Magnesium, Potassium, Iron and Gold
   a) Magnesium, Potassium, Iron, Gold
   b) Magnesium, Iron, Potassium, Gold
   c) Potassium, Magnesium, Iron, Gold
   d) None of these

II. State True or False, if false correct them

6. Immersion rods for heating liquids are made up of non-metallic substances.

7. The surface of most metals have shiny appearance.
8. Gold is not found in the free state.
9. Sodium does not occur in the free state.
10. The sulphurous acid turns red litmus blue.

III. Fill in the blanks.

11. Zinc is ..... reactive than copper.
12. Metals react with oxygen to produce ..... oxides.
13. Phosphorous is a very ..... non-metal.
14. Metals react with acid to produce ..... gas
15. Phosphorous is stored in .....

IV. Name the following.

16. A non-metal which is lustrous.
17. Metal that do not react with oxygen even at high temperature.
18. Metal foil used to decorate sweets.
19. Smallest unit of an element.
20. The process by which minerals such as metals are slowly eaten away when expressed to air and moisture.

V. Match the following.

	Column A	Column B
21.	Drinking water and water in swimming pool	i) Charcol
22.	Thermal power plant for generating electricity	ii) Helium
23.	Manufacturing of fungicides	iii) Silver
24.	Meterological balloons	iv) Coal
25.	Deodorant in purification of water	v) Sulphur
		vi) Chlorine

VI. Assertion- Reason type questions.

26. Assertion: Silver objects become green and lose their shine with the passage of time.
    Reason: Silver reacts with CO_2 and moisture present in the atmoshere.
27. Assertion: Metals are malleable and ductile.
    Reason: Non-metals are malleable and ductile.
28. Assertion: Metals can be drawn into thin wires
    Reason: this property of metals is malleability.
29. Assertion: Silver is not used in making electric wires.
    Reason: Silver is a poor conductor.
30. Assertion: Gold, Silver and Bromine are pure substances.
    Reason: The metals and non-metals are the types of elements based on the variation in properties.

VII. Define the following.

31. Metals
32. Non-metals
33. Malleability
34. Ductility
35. Lustrous
36. Sonority
37. Conducting
38. rusting
39. Displacement reaction
40. Reactivity series.

VIII.Give reason

40. Coal on beating breaks down into small pieces.
41. Handles of metallic pan or cookwares are made up of non-metals or plastics.
42. Bells in the temples are made up of metals.
43. 24 carat gold is mixed with some silver or copper to make ornaments.
44. Zinc sulphate and copper when reacted will they undergo reaction.

IX. What happens when

45. Cu vessel exposed to moisture for long time.
46. Mg ribbon heated in presence of air.
47. Metals reacts with oxygen in air.
48. Sulphur turns in air.
49. Metals reacts with acids.

X. Answer the following

50. Mercury is largely used in the thermometers to measure the temperature. It is a very dangerous metals as its density is very high. If it get into the food chain, it leads to mercury poisoning.
    i) What precautions you must take while handling equipments containing mercury?
    ii) Why mercury is used in thermometers?
    iii)Can you suggest other alternatives to mercury thermometers?
51. Have you ever seen a blacksmith beating an iron piece? Do you find a change in the shape of these pieces on beating? Would you expect a smiliar change in wooden log on beating?
52. A metal X can replace another metal Y from its metal salt. Is X above or below Y in the reactivity series?
53. Describe an experiment to show the conditions necessary for rusting of iron.
54. If you are an engineer consructing a multistorey building. Which alloy would you be extensively using and why?
55. A doctor diagnosed a patient with iron deficiency and gave him tablets containing iron. But the tablets were not hard and did not look like iron at all. What do you think the tablets contained?
56. Define rusting. What will be the result when iron undergo rusting? What are the precautions that you can take in order to prevent rusting?

BIOLOGY

Chapter 1

Crop Production and Management

I. MCQ

1. Name the practice of growing two or more dissimilar crops in the same field one after another.

   a) Crop rotation b) Harvesting c) Winnowing d) Threshing

2. The organic substances obtained from dead plants and animal wastes is

   a) Manure b) Fertilizer c) Irrigation d) Agriculture

3. Compost is basically a

   a) Fertilizer b) Manure c) Pesticide d) Insecticide

4. Which of the following tools would a farmer use to remove weeds from the field?

   a) Hoe b) Plough c) Axe d) Cultivator

5. Which of the following statement is not true for organic manure?

   a) It enhances water holding capacity of soil.

   b) It has a balance of all plant nutrients

   c) It provides humus to soil.

   d) It improves texture of soil.

6. Write the name of modern tool of sowing.

   a) Plough b) Hoe c) Seed drill d) Sickle

II. Assertion (A) - Reason (R)

a. Both A & R are true and R is the correct explanation of A.

b. Both A & R are true but R is not the correct explanation of A.

c. A is true but R is false.

d. Both A and R are false.

1. Assertion: Continuous cultivation of crops makes the soil poor in nutrients.

   Reason: Urea is a natural manure.

2. Assetion: Appropriate distance between the seeds is necessary.
   Reason: This will avoid overcrowding of plants.
3. Assertion: The crops grown in winter season are rabi crops.
   Reason: The crops grown in rainy season are kharif crops.
4. Assertion: The process of loosening the soil is called sowing.
   Reason: Winnowing is the method used for sowing.
5. Assertion: The grains are properly dried in the sun to reduce the moisture content in them.
   Reason: This prevents the attack by insect pests, bacteria and fungi

III. Short Answer Questions

1. Why it is necessary to dry grains before storing them?
2. Why it is excessive irrigation harmful to crops?
3. Name some common agricultural implements?
4. Why kharif crop cannot grown in rabi season?
5. Differenciate between Kharif crop and Rabi crop.
6. Write short note on seed drill.
7. What do you mean by the term irrigation?
8. Give examples of fertilizers.
9. If a handful of seeds are given to you ,how will you separate seeds from damaged ones?
10. Describe animal husbandry.
11. Why do you think removal of weeds is essential? Write any one method to control weeds.
12. What is crop rotation? Why is it important?
13. List the advantages of manure over fertilizers.
14. List The agricultural activities?

Chapter 2

Microorganism: Friend & Foe

I. MCQ

1. The example of protozoan is

   a) Penicillium b) Blue green algae c) Amoeba d) Bacillus

2. The following is an antibiotics

   a) Alcohol b) Yeast c) Sodium bicarbonate (d) Streptomycin

3. Plant disease citrus canker is caused by

   a) Virus b) Fungi c) Bacteria d) None of these

4. The bread dough rises because of

   a) Kneading b) Heat c) Grinding d) Growth of yeast cells

5. Plasmodium is a human parasite which causes

   a) dysentery b) Sleeping sickness

   c) Malaria d) All of the above

6. Which of the following is not a fungi

   a) Paramecium b) Bread mould

   c) Penicillium d) Aspergillus

II. Assertion - Reason

1. Assertion: Edward Jenner discovered the vaccine for small pox.

   Reason: Alexander fleming discovered fermentation.

2. Assertion: Disease causing microorganisms are called pathogens.

   Reason: The flies sit on uncovered food may transfer the pathogens.

3. Assertion: Use of oil and vinegar presents spoilage of pickles.

   Reason: Pasteurised milk can be consumed without boiling.

4. Assertion: Chloera is caused by virus.

   Reason: Rust of wheat is a bacterial diseases.

5. Assertion: Cholera is caused by virus.

   Reason: When the disease causing microbe enters our body, body produces antibodies.

III. Competency based questions.

1. What is pasteurization? How is it useful?
2. What are vaccines? How does a vaccine work?
3. Which microorganism acts as decomposers? How is this activity useful to us?
4. Describe the role of Rhizobium in maintaining soil fertility?
5. What is communicable disease?
6. Microbes will never grow in food kept inside refrigerator. Do you agree? Why?
7. What do you mean by Food preservation and Food poisoning

IV. Very short Answer Type questions.

1. What are microorganisms?
2. What is Polio?
3. What is a pathogen?
4. What is food preservation?
5. What is nitrogen cycle?
6. Name two parasitic protozoa that cause diseases in human?
7. What is fermentation?

Chapter 7

CONSERVATION OF PLANTS AND ANIMALS

1. What is deforestation? Explain its effects in details.
2. Which gas is predominantly responsible for global warming?
3. What are extinct species?
4. What gas do plants use in photosynthesis?

5. What is ‘species’?
6. Name the first Reserve Forest of India.
7. What is Biosphere?
8. Name two national parks.
9. What is deforestation?
10. What can be done to retain our ‘green wealth’ for generations?
11. What is Red Data Book?
12. Name two wildlife sanctuaries.
13. How many rock shelters have been identified in the Pachmarhi biosphere reserve?
14. What is a wildlife sanctuary?
15. What are the aims of the ‘Forest Conservation Act’ in India?
16. What is the major threat to survival of organism?
17. Name the part of earth which supports the biodiversity.
18. Give examples of two endemic flora
19. Name the plant found in Satpura forest.
20. How do we protect wildlife?
21. What do you mean by migration? Write causes of migration.
22. Name two threatened wild animals.
23. What is the tiger Project? When it was launched?

History

Chapter 1

THE MODERN PERIOD

1. Earlier history revolved around the life of .....
2. The arrival of British marked the begining of which period in India?
3. The British rule in India is described as ..... period by the Indian historians .
4. Revolt of 1857 is also known as .....
5. It is easier to define dates for events in ..... history.
6. Where are the main source of information regarding the modern period?
7. Where are the literary sources preserved in India?
8. When was the first issue of newspaper Harijan was published?
9. Book written by Dadabhai Naoroji which highlited the exploitative nature of British.
10. Name the two newpapers that revealed the real intentions of British.
11. How history should be interpreted?
12. Why did the British preserve official documents?

Chapter 2

THE EXPANSION OF BRITISH POWER

1. Name the trading company started by British to trade with India.
2. Name any five countries that setup their base in India for trades.
3. Which are the two European power who were involved in the carnatic wars.
4. Rulers of Bengal who tried to check the officials of the company.
5. Which war was fought between Siraj-ud-Daulah & British in 1757?
6. ..... and ..... betrayed Siraj-ud-Daulah in the Battle of Plassey.
7. What type of Government was esatablished in Bengal after the battle of Boxar?

8. Capital of Tipu Sultan's Emperor.
9. Under which system a 'Resident' will be stationed at the ruler's court.
10. Who was the ruler of Awadh during the time of its annexation?
11. Who setup the fort William College at Calcutta?
12. What is civil and criminal court at district level in India known as ...
13. ..... and ..... gave a proper shape to the judicial set up.
14. A crime where highway robbers killed travellers and escape with their valuables.
15. Who set up the Fort William College at Calcutta?
16. What is the hindi version of the word 'sepoy'?
17. Who was the first Indian to join the Indian Civil Service?
18. Name the 4 agencies that carry out the day-to day administration of the district.
19. The Presidencies was adminitered by a .....
20. Name two policies adopted by the British to expand their territory in India.
21. Mention the events related to these years

    a) 1793 b) 1801 c) 1843 d) 1757

    e) 1764 f) 1799

Answer the following.

1. Who introduced the policy of doctrine of Lapse and explain the main features.
2. It was difficult for Indians to get selected in Civil Service. Give reasons.
3. Write a paragraph about

    a) Maharaja Ranjit Singh

    b) Tipu Sultan

    c) Siraj-ud-Daulah

Social and Political Life

Chapter 1

THE CONSTITUTION AND THE NEED FOR LAWS

1. A ..... is an essential principle a standard or a guide for action.
2. The constitution is also regarded as the ..... of a country.
3. Which country has an unwritten constitution?
4. What is the full form of PNDT and when was this act came into effect.
5. The Dandi March marked the begining of the ..... movement.
6. When did the Indian constitution came into effect?
7. What does rule of law implies?
8. The fundamental rights of the people can be declared null and void by the .....
9. Write a short note on Salt Satyagraha.
10. Explain the concept - Role of Law.

Chapter 3

THE PARLIAMENTARY SYSTEM

1. The period during which the houses meet to conduct its business.
2. How is a law introduced in the parliament for the first time?
3. Indian Parliament is also known as .....
4. Indian parliament consist of the ..... and the two ..... of the parliament.
5. First past-the-post electrol system is also known as .....
6. When did the first elected parliament came into being?
7. Who is the present speaker of Lok Sabha?
8. What is the age limit to become a member of Rajya Sabha?
9. Who have the power to summon the two houses of the parliament?

10. The period of time when the ministers answer the questions asked by the members of the parliament.
11. Mention the powers possed by the Indian President.
12. The process of removing President from his power.
13. The ..... is the link between the President and the legislature.

Answer the following.

1. Explain the features of the parliamentry system of government.
2. Who is the architect of Indian Parliament? Write a note on Indian Parliament.

Geography

Chapter 1

RESOURCES

I. True or false.

1. Gold and silver are the example of localized resources.
2. Renewable resources are exhaustible resources.
3. Biotic resources have the capacity to reproduce.
4. Resources created by human beings are human made resources.
5. Fossible fuel is the example of exhaustible resources.

II. Fill in the blanks.

1. The force of falling water is used to generate .....
2. Resources which are found at certain place are known as .....
3. ..... and ..... are the two main factors which can change substance into a resource.
4. On the basis of development, resource can be divided into ..... and .....
5. The resources whose total available quantity is not known at present are called .....

III. Choose the correct answer.

1. Which one of the following is a biotic resource?

   a) forest b) water c) mineral d) land

2. Which one of the following statement is correct?

   a) soil is a non renewable resource.

   b) The greatest resource of the earth is human beings.

   c) The continuous rise in population caused an increasing demand for resource

   d) none of these

3. Which one of the following is a human made resources?

   a) mineral oil b) fossil fuel c) soil d) technology

4. Which one of the following is an ubiquitous resources?

   a) gold b) silver c) sunlight d) iron ore

5. Which one the following statement is correct?

   a) human wants are limited

   b) resources are unlimited on the earth.

   c) human beings use their knowledge and skill to development technology

   d) The concept of sustainable development is study of human resource.

IV. Short answer questions

1. Differentiate between renewable and non-renewable resources.
2. "The utility and availability of natural resources unique" - Explain the factors determining the natural resources.
3. What are resources?
4. Explain the role of human made resources in the modern world.
5. How can we convert gift of nature into a resource in the future?

V. Higher Order Type questions

1. 'The consequences of environmental degradation is not limited to a region' . Do you agree with this statement? (Give your views)
2. A developing country like in India should invest more on Human Resource. How can we invest on Human resource. Explain.

Chapter 2

NATURAL RESOURCES - LAND, SOIL AND WATER

I. True or false.

1. Land covers about 29% of the total surface area of the earth.
2. Alluvial soil is also known as black lava soil.
3. Leaching of soil is common in Horizon A.
4. Alluvial soil very fertile.
5. Parent rock will affect the formation of the soil.

II. Fill in the blanks.

1. ..... soil can be made fertile by adding manure and chemical fertilizer.
2. ..... is locally called regur.
3. ..... is common in Horizon A
4. ..... helps the natural forces to replenish soil fertility.
5. Vertical section of soil from the surface to the parent rock is known as .....

III. Choose the correct answer.

1. Which among the following is not a factor responsible for soil formatin?
   a) relief b) time c) climate d) fertilizer
2. Which one of the following is not a cause of soil erosion?
   a) deforestation b) velocity of the wind
   c) overgraxing d) fallowing
3. Which one of the following statement is true?

a) About 81% of the total surface area of the earth is covered with water.

b) Fertility of the soil can be regained through intensive manuring

c) Desert soil is found in peninsular India.

d) Laterate soil is found in Deccan Trap.

4. Which among the horizon contains humus in it

aa) Horizon A b) Horizon B c) Horizon C d) Horizon D

5. The cultivation of land depends upon

a) technology b) fertility of soil

c) fertilizers d) all the above

IV. Short answer questions

1. Suggest some measures to use the land efficiently.
2. "Different physical and cultural factors cause soil erosion". Explain.
3. Which soil is suitable for sugar cane cultivation? Explain the features of the soiltype.
4. How relief and climate affect the formation of soil?
5. What do you meant by soil profile?
6. How can you conserve water resources in India?

V. Higher Order Type questions

1. At present, the demand for freshwater has increased due to produce more food, to meet domestic needs etc. In this situation, what you can do to conserve water reources.
2. If the soil cover is removed, our planet would become a barren and lifeless as the moon. Hence suggest measures to conserve soil.

VI. Map questions

1. Mark and locate

a) Areas under desert soil and mountain soil

b) Rivers -Ganga, Narmada, Bhrahmaputra

Chapter 3

NATURAL RESOURCES - NATURAL VEGETATION AND WILDLIFE

I. True or false.

1. Conferous forests found in Taiga Region.
2. Tundra vegetation is found in southern hemisphere.
3. Olive, cork, oak found in Mediterranean region.
4. Larch found in the taiga region.
5. Social forestry is not a solution of conservation of natural vegetation.

II. Fill in the blanks.

1. ..... refers to all plants, animals, birds and organisms which live in their natural habitat.
2. The narrow zone whree the lithosphere hydrosphere and atmosphere meet is called .....
3. The evergreen treas are found in the .....
4. The full of CITE is .....
5. The removal of forest cover is called .....
6. The growth of vegetation is mainly controlled by ..... and .....

III. Choose the correct answer.

1. The clearance and destruction of natural vegetation, especially forest led to
   a) Barrenhill tops b) Social forestry
   c) grassland d) none of these
2. A major part of savanna is now used for .....
   a) farming and live stock rearing b) strip cropping
   c) both a and b d) none of these

3. Iron wood, mahogony, ebony found in

   a) Taiga region b) Temparate region

   c) Tropical region d) none of these

IV. Short answer questions

1. What do you meant by biosphere?
2. What do you meant by ecosystem?
3. Explain the initiative taken by different countries to conserve the natrual vegetation.
4. Which wild animal you like most? Why we have to conseve wild life? How?
5. What is the role of CITE?
6. Differentiate between Tropical region and Temperate region.

V. Higher Order Type questions

1. The existence of wildlife is essential to maintain a balance in our environment. Do you agree? Give your answer.
2. "The illegal activities of human beings creates an imbalance in the ecosystem." How? Suggest measures for the maintanance of ecological balance.

Mathematics

Chapter - 1

RATIONAL NUMBERS

I. Choose the correct answer:

1. How many rational numbers are there between any two given rational numbers

   a) only one b) only two c) infinite d) nothing can be said

2. A integer can be

   a) only positive b) only negative

   c) both +ve and -ve d) none of these

3. Associative propertlyfor rational number is applicable to

   a) × and + b) + and - c) - and ÷ d) × and ÷

4. The multiplicative inverse of is $\frac{1}{2}$ is

   a) $-\frac{1}{2}$ b) 2 c) -2 d) 1

5. Which of the following statement is true?

   a) $\frac{7}{9} < \frac{9}{11} < \frac{11}{13}$ b) $\frac{9}{11} < \frac{11}{13} < \frac{7}{9}$

   c) $\frac{9}{11} < \frac{7}{9} < \frac{11}{13}$ d) $\frac{7}{9} < \frac{9}{11} < \frac{11}{13}$

6. Which one of the following lies between $\frac{3}{7}$ and $\frac{6}{7}$

   a) $\frac{9}{7}$ b) $\frac{9}{14}$ c) $\frac{9}{2}$ d) $\frac{2}{7}$

II. Do as directed

7. Fill in the blanks with '<, > or =' symbols.

   a) $-\frac{5}{6} \square \frac{-3}{7}$ b) $\frac{3}{4} \square \frac{6}{8}$ c) $-\frac{6}{11} \square \frac{7}{8}$ d) $\frac{25}{100} \square \frac{-6}{112}$

8. Using appropriate properties find:

a) $\frac{2}{7}\times\left(\frac{-3}{2}\right)+\frac{4}{5}\times\left(\frac{-2}{7}\right)-\frac{1}{6}\times\left(\frac{-2}{7}\right)$

b) $-\frac{4}{5}\times\frac{3}{7}+\frac{4}{5}\times\frac{2}{7}-\frac{1}{7}\times\frac{4}{5}$

c) $\frac{2}{5}\times\frac{-3}{7}-\frac{3}{5}\times\frac{3}{7}-\frac{1}{14}$

d) $\frac{2}{3}\times\frac{-1}{6}+\frac{1}{5}-\frac{2}{3}\times\frac{11}{5}$

e) $\frac{9}{2}\times\frac{3}{7}+\frac{3}{5}\times-\frac{9}{2}$

III. Answer the following

9. Represent the following rational numbers on number line (draw separate numberlines)

a) $\frac{-3}{10}$ b) $\frac{-11}{12}$ c) $\frac{9}{4}$ d) $\frac{-7}{6}$

10. Find 7 rational numbers between $\frac{-2}{5}$ and $\frac{1}{2}$

11. Is $\frac{31}{40}$ lies between $\frac{4}{5}$ and $\frac{3}{4}$?

12. Subtract the sum of $\frac{-8}{7}$ and $\frac{-5}{3}$ from the sum of $\frac{3}{2}$ and $\frac{-31}{28}$.

13. Divide the sum of $\frac{-3}{4}$ and $\frac{-5}{12}$ by their product.

14. Find 10 rational numbers greater than -10.

15. Find 5 rational numbers between $\frac{1}{4}$ and $\frac{-1}{2}$.

16. The area of rectangle is $145\frac{5}{6}$ sq.cm. If it is $17\frac{1}{2}$ cm long, find its width.

17. What should be added to $\frac{-7}{8}$ so as to get $\frac{5}{9}$?

18. What should be added to $\left(\frac{1}{2}+\frac{1}{3}+\frac{1}{5}\right)$ to get 3?

19. By what number should $\frac{-3}{4}$ be multiplied in order to get $\frac{2}{3}$?

20. What number should be subtracted from $\left(\frac{3}{4}-\frac{2}{3}\right)$ to get $\frac{-1}{6}$?

21. For $a = \frac{2}{3}$, $b = \frac{-5}{6}$ and $c = \frac{1}{2}$, prove that a × (b+c) = (a×b) + (a×c). Identify the property.

22. Multiply $\frac{8}{7}$ by the reciprocal of $-2\frac{5}{7}$.

23. Find the next rational number in the given pattern

$\frac{-1}{6}, \frac{2}{-12}, \frac{3}{-18}, \frac{4}{-24}$,.....

24. Name the property used in the following

a) $\frac{-5}{16}\times\frac{8}{15} = \frac{8}{15}\times\frac{-5}{16}$

b) $\frac{-13}{17}\times 1 = \frac{-13}{17} = 1\times\frac{-13}{17}$

c) $\frac{-7}{5}+\left(\frac{3}{4}+\frac{-1}{3}\right)=\left(\frac{-7}{5}+\frac{3}{4}\right)+\frac{-1}{3}$

d) $\frac{7}{4}\times\left(\frac{-8}{3}+\frac{2}{5}\right)=\left(\frac{7}{4}\times\frac{-8}{3}\right)+\left(\frac{7}{4}\times\frac{2}{5}\right)$

IV. Fill in the blanks.

25. The product of a rational number and its reciprocal is .....

26. $\frac{-9}{14} \times ..... = \frac{-9}{14}$

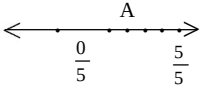
27. $\frac{-7}{9} + ... = 3$

28. The numbers ..... and ..... are their own reciprocals.

29. The product of 2 rational numbers is always .....

30. The number which does not have a reciprocal is .....

31. The point A represents the rational number .....



32. Find the multiplicative inverse of the following.

a) -7 b) $\frac{-3}{-5}$ c) $\frac{-5}{8} \times \frac{16}{15}$ d) -1 e) $-2 \times \frac{-3}{5}$

33. Find additive inverse of the following.

a) $\frac{-7}{5}$ b) $\frac{-10}{-11}$ c) 0 d) $\frac{-2}{3} \times \frac{9}{4}$ e) $\frac{12}{-5}$

Chapter - 2

LINEAR EQUATIONS IN ONE VARIABLE

I. Match the following:-

	Equation	Solution
1.	$4.2 = \frac{x}{5}$	A. $\frac{29}{10}$
2.	$\frac{-2}{5} + x = \frac{5}{2}$	B. 7
3.	$\frac{15x}{4} = 45$	C. 21
4.	$\frac{4m-3}{5} = 5$	D. 4
5.	$5 = 3y - 7$	E. 12

II. Choose the correct answer.

6. A number when added to $\frac{3}{4}$ of 28, gives 30. Find the number.

   a) 51 b) 21 c) 23 d) 9

7. If $t = \frac{1}{2}x + \frac{3}{2}$, find 2t

   a) 2x+3 b) x + 3 c) x + 12 d) x + 6

8. Identify the linear equation in one variable from the following.

   a) $3z^2-12 = 0$ b) $\frac{1}{4}y - 7 = 0$

   c) $x^2+x^3 = 2$ d) 5x + 3y + z = 10

9. If the sum of two consecutive natural numbers is 29, then the larger number is

   a) 13 b) 14 c) 16 d) 15

10. If 6 times the price of a book is `40 less than 8 times its price, then the price of the book is

    a) 80 b) 20 c) 38 d) 42

III. Solve the following linear equations

11. 4x + 6 = 5(x-1) + 7

12. $\frac{x}{4} - \frac{x-3}{6} = 1$

13. 5 : x = 1.25 : 2.5

14. $\frac{4x+2}{2x+16} = \frac{1}{3}$

15. $p = \frac{1}{3}(6p + 12)$

16. $4y + \frac{10}{3} = \frac{25}{3} - y$

17. 40% of x + 20% of x + $\frac{1}{10}$ = 75% of x

18. $3(5t - 7) - 2(9t - 11) = 4(8t - 13) - 17$

19. $0.5(8m - 6) = 0.1(20m - 10)$

20. $2 + \frac{t-4}{2} + \frac{6t}{3} = t + \frac{3}{2}$

21. $\frac{4x-6}{3+8x} = \frac{-4}{3}$

22. $\frac{5x+2}{2} - 3 = \frac{5x-5}{8}$

23. $5x + \frac{7}{2} = \frac{3}{2}x - 14$

24. $\frac{x}{2} + \frac{5x}{4} - \frac{x}{8} - \frac{3x}{2} = \frac{1}{4}$

25. $2\left(x + \frac{11}{4}\right) = 13$

IV. Answer the following.

26. The difference between the digits of a 2 digit number is 7. If the digits are interchanged and added with the original number, we get 121. What is the original number?

27. One-forth of a number is 7 less than twice that number, then find the number.

28. Sheetal has a total of Rs. 590 as currency notes in the denominations of rs. 50, Rs. 20, and Rs. 10. The ratio of the number of Rs. 50 notes and Rs. 20 notes is 3 : 5. If she has a total of 25 notes, how many notes of each denomination she has?

29. Eight years ago, a mother's age was 11 times that of her son. The sum of their present ages is 40 years. Find their present ages.

30. The numerator of a rational number is greater than its denominator by

6. If the numerator and denominator are increased by 7 and 1, respectively the number obtained is $\frac{5}{2}$. Find the rational number.

31. Two numbers are in the ratio 3:5. If 8 is added to both of them, then their ratio becomes 2 : 3. Find the numbers.
32. The present ages of Shalini and Raju are in the ratio 3 : 4. If the ratio of their ages becomes 5 : 6 after 12 years, then find the ages of Raju after 12 years.
33. If one-forth of a number is 7 less than twice that number, then find the number.
34. The sum of two numbers is 1210. If one of the numbers is 10% of the other, find the numbers.
35. The sum of three consecutive multiples of 12 is 432. Find the multiples.

V. Fill in the blanks.

36. The sum of a number and $\frac{1}{4}$ of the same number is 30, then the required number is .....
37. If the area of a triangle is 48cm and its base is 12cm, then its vertical height is .....cm.
38. If we multiply a number by 3, we get 8 more than half of that number. Then the number is .....
39. A linear equation in one variable has ..... solution.
40. 5 is added to thrice a number x gives 20. The value of x is .....
41. The perimeter of a rectangle is 12m and its width is 2m its length is....
42. Sum of 3 consecutive even numbers is 36. Then largest number is .....
43. If x= 2, then the value of 4.4x - 3.8 is .....
44. If $\frac{5y}{3} + \frac{2}{5} = 1$ then y = ...

45. A piece of rope k meters long is cut into 8 parts, then the length of each part is .....

Chapter - 3
UNDERSTANDING QUADRILATERALS

I. Match the following.

	Name of the regular polygon	Measure of each exterior angle
1.	Equolateral triangle	i) 36^o
2.	Square	ii) 40^o
3.	Pentagon	iii) 60^o
4.	Nonagon	iv) 72^o
5.	Hexagon	v) 90^o
6.	Decagon	vi) 120^o

II. Choose the correct answer

7. A polygon is a simple closed figure formed with

   a) one line segment b) two line segments

   c) three or more line segments d) no line segments

8. If AB and CD are 2 parallel sides of a parallelogram, then

   a) AB > CD b) AB < CD c) AB =CD d) none of these

9. A regular polygon is

   i) Equiangular ii) Equilateral

   a) only (i) b) only (ii)

   c) Either (i) or (ii) d) Both (i) and (ii)

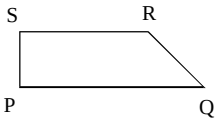
10. ABCD is a rectangle. AC and BD are its diagonals. If AC = 10cm then BD is

    a) 10cm b) 5 cm c) 15 cm d) 20 cm

11. ∠A and ∠B are two adjacent angles of a parallelogram, if ∠A = 70°, then ∠B=

    a) 70° b) 90° c) 110° d) 180°

12. PQRS is a trapezium, which of the following statements is true?



    a) PQ = SR b) PQ || SR c) PS = RQ d) ∠PSR = ∠SRQ

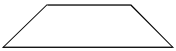
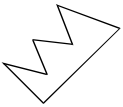
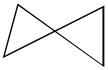
13. Which one of the following is a regular quadrilateral?

    a) square b) trapezium c) kite d) rectangle

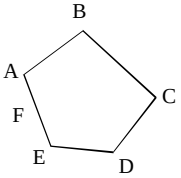
14. Which of the following quadrilaterals have two pairs of adjacent sides equal and its diagonals intersect at 90°?

    a) square b) kite c) rhombus d) rectangle

15. Which one of the following is a closed curve that is not simple?

    a)  b)  c)  d) 

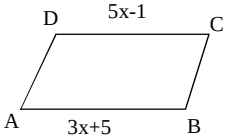
16. In the given pentagon, which of the following lines is not a diagonal?



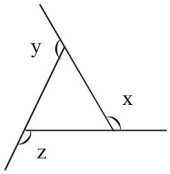
    a) FC b) BD c) AC d) BE

III. Do as directed.

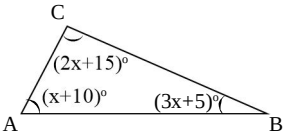
17. In the parallelogram ABCD, find x



18. In the given figure find x + y + z



19. Find the value of k in the given triangle.

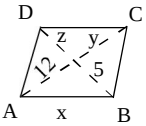


20. Find the measure of each interior angle of a regular polygon of 9 sides.

21. ABCD is a rhombus.

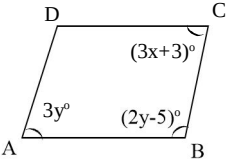
    Find the values of x, y and z.

    Also find x + y + z



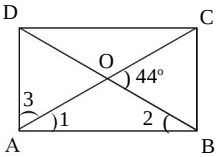
22. In the given parallelogram ABCD find x and y.

23. The angles of a quadrilateral are in the ratio 1 : 2 : 3 : 4. What are the measures of the four angles?

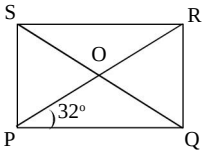


24. Adjacent sides of a rectangle are in the ratio 5 : 12. If the perimeter of the rectangle is 34 cm, find the length of the diagonal.

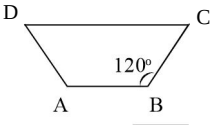
25. The diagonals of a rectangle ABCD meet at O. If ∠BOC = 44° find ∠OAD



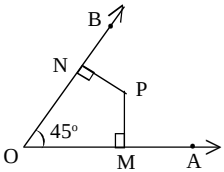
26. PQRS is a rectangle with ∠QPR = 32°. Determine ∠SQR



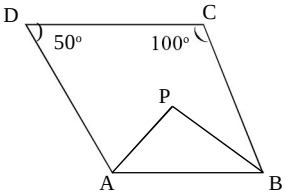
27. In the given trapezium ABCD in which AB || DC. Find ∠C.



28. In the given figure find the measure of ∠MPN.



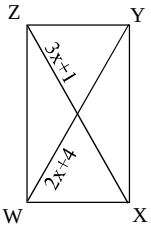
29. In the given figure anglebisectors of ∠A and ∠B meet at a point P. If ∠C = 100° and ∠D = 50° find the measure of ∠APB.



30. The measures of angles of a hexagon are x^o, $(x-5)^o$, $(x-5)^o$, $(2x-5)^o$, $(2x-5)^o$, $(2x+20)^o$. Find the value of x. Also find all angles.

31. A quadrilateral has three acute angles each measures 80^o. What is the measure of the 4^{th} angle.

32. WXYZ is a rectangle. Find x.
Also find the lengths of diagonals.



33. Find the value of x in the following regular polygon

Chapter - 4
PRACTICAL GEOMETRY

1. Construct a quadrilateral ABCD in which AB = 4.4 cm, BC = 4 cm, CD = 6.4 cm, DA = 2.8 cm and BD = 6.6 cm.
2. Construct a parallelogram ABCD where AB = 3.6 cm, BC = 4.2 cm and AC = 6.5 cm.
3. Construct a rhombus with side 4.5cm and one diagonal 6 cm.
4. Construct a quadrilateral PQRS in which PQ = 3.5 cm, QR = 2.5 cm, RS = 4.1 cm, $\angle Q = 75^o$ and $\angle R = 120^o$.
5. Construct a quadrilateral OKAY where OK = 3.5 cm, KA = 6.5 cm, $\angle O = 75^o$, $\angle K = 105^o$ and $\angle A = 120^o$.
6. Construct a square of side 6.2 cm.
7 Construct a rectangle READ with adjacent sides of lengths RE = 5cm and EA = 4cm.
8. Construct a parallelogram BENT, where BE = 5.5 cm and EN = 4.2 cm.
9. Construct a parallelogram WISE, WI = 5 cm, IS = 6 cm, $\angle E = 85^o$.
10. Construct a rhombus ABCD where AC = 5.6 cm and DB = 6.5 cm

Choose the correct answer:

11. How many measurements can determine a quadrilateral uniquely?
    a) 2 b) 3 c) 4 d) 5
12. The diagonals of a square are ..... each other.
    a) equal to b) unequal to
    c) perpendicular bisectors d) none of these
13. Minimum possible interior angle in a regular polygon is .....
    a) 70^o b) 60^o c) 90^o d) 120^0
14. To contruct a quadrilateral we need to know three sides and ..... included angles.
    a) 1 b) 2 c) 3 d) 4
15. To construct a square, we need to know
    a) all the interior angles b) all the side lengths
    c) only one interior angle d) only one side length
16. If two diagonals are given, then we can construct
    a) rhombus b) rectangle c) kite d) parallelogram
17. To construct a quadrilateral JKLM with measures JK = 4.5 cm, KL = 3.6 cm, $\angle J = 60^o$, $\angle K = 110^o$ and $\angle L = 80^o$. Which of the measurements should be taken as a base?
    a) JK b) KL c) either JK or KL d) none of these

Chapter - 5

DATA HANDLING

I. Choose the correct answer.

1. In the interval 0-10, 10 is called the
    a) lower unit b) upperlimit c) range d) frequency
2. The range of the data:
    6, 14, 20, 16, 6, 5, 4, 8, 18, 25, 15 and 5 is
    a) 4 b) 21 c) 25 d) 20

3. The class width of the class 300-325 is

   a) 100 b) 25 c) 50 d) 20

4. The central total angle of a pie chart is

   a) 180^o b) 210^o c) 360^o d) 90^o

5. 18 out of 36 people love reading. So reading in the pie chart will be represented by

   a) 36^o sector b) quarter sector

   c)semi circular sector d) none of these

6. The Pie-chart is divided into

   a) circles b) squares c) sectors d) segments

7. The number of times an observation occurs in a data is called its'

   a) Range b) Interval c) Frequency d) Raw data

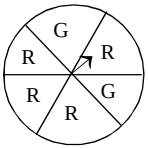
8. Which of the following is the probability of an impossible event?

   a) 1 b) 0 c) Between 0 and 1 d) more than 1

9. When a die is thrown total number of possible outcomes is

   a) 6 b) 36 c) 2 d) 12

10. In spinning a wheel as in figure the probability of getting Red sector is



   a) $\frac{2}{3}$ b) $\frac{2}{5}$ c) $\frac{1}{6}$ d) $\frac{1}{3}$

II. Do as directed

11. An unbiased die is thrown. What is the probability of getting

    i) an even number ii) a prime number

    iii) a number greater than 4 iv) a number 3 or 4

12. A bag contains 5 red balls, 8 white balls, 4 green balls and 7 black balls. If one ball is drawn at random, find the probability that it is:

    i) black ii) red iii) not green

13. The maximum temperatures (in degree celcius) for Delhi for the month of August 1998 is given below. Construct a frequency distribution table.
32.5, 30.5, 33.8, 31, 28.6, 33.9, 33.3, 32.4, 30.4, 32.6, 34.7, 34.9, 31.9, 35.2, 36.9, 37, 32.5,34.4, 37.3, 36.9, 36.3, 36.7, 29.4, 32.2, 31.5

14. The following is the distribution of weights (in kg) of 50 persons: Draw histogram for the given data

weight in kg	50-55	55-60	60-65	65-70	70-75	75-80
no. of persons	12	8	4	3	6	7

15. The following table gives the marks scored by 100 students in an entrance examination.

marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
no. of student	4	10	16	22	20	18	8	2

Reprent this data in the form of histogram.

16. The number of students admitted in different faculties of a college are given below: Draw a pie chart for this

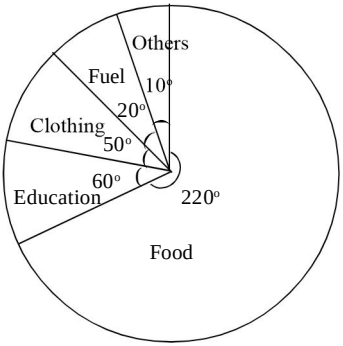
Faculty	Science	Arts	Commerce	Law	Education	Total
no. of students	1000	1200	650	450	300	3600

17. The following table shows the expenditure incurred by a publisher in publishing a book: Draw a pie diagram for this.

Items	Paper	Printing	Binding	Advertising	Miscellaneous
Expenditure in (%)	35%	20%	10%	5%	30%

18. Draw a pie-diagram representing the relative frequencis (expressed as %) of the eight classes as given below.
12.6, 18.2, 17.5, 20.3, 2.8, 4.2, 9.8, 14.7

19. The pie chart shown represents the expenditures of a family on different items. Find the percentage expenditures on different items by reading the pie chart.



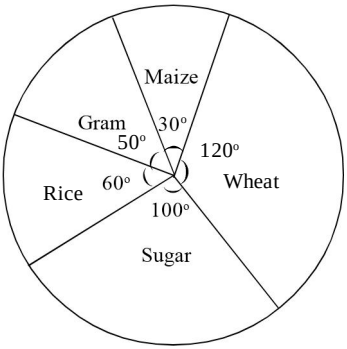
20. The following table represents the amount spent on different sports by a sports club. Represent it through a pie chart.

Hockey	30,000
Cricket	45,000
Football	18,000
Tennis	15,000

11. The following data relates to the cost of construction of a house. Draw a pie diagram to represent the data.

Items	Cement	Steel	Bricks	Timber	Labour	Miscellanrous
Expenditure	30%	10%	10%	15%	25%	10%

12. The pie-chart shows the annual agricultural production of an Indian state. If the total production of all the commodities is 81000 tonnes, find the production (in tonnes) of



i) wheat ii) sugar iii) rice
iv) maize v) gram

Chapter - 6

SQUARES AND SQUARE ROOTS

I. Choose the correct answer.

1. What is the units' digit of the number if its square ends in 6?

   a) 4 b) 6 c) either 4 or 6 d) neither 4 nor 6

2. How many times does 3 occurs in the prime factorisation of 144?

   a) 3 b) 2 c) 1 d) 0

3. If the area of a square is 400 cm^2 , then the length of its side is

   a) 20cm b) 40cm c) 10 cm d) 200 cm

4. Which one of the following is the smallest 3-digit perfect square?

   a) 100 b) 111 c) 107 d) 121

5. Find area of a square of side 2.1 cm

   a) 4.41 cm^2 b) 441 cm^2 c) 0.441 cm^2 d) 4410 cm^2

II. Fill in the blanks.

6. If a perfect square has 7 digits, then its square root will have ..... digits.
7. The nearest whole number to $\sqrt{40}$ is .....
8. If a = 169 then $\sqrt{a}$ = ...
9. The number of digits in the square root of 36,000000 is .....
10. The least number to be subtracted from 38 to get a perfect sqaure is .....
11. The expression for 17^2 as the sum of two consecutive natural numbers are ..... and .....
12. There are ..... perfect squares from 1 to 100
13. There are ..... non-perfect squares numbers between the squares of the numbers 80 and 81.
14. Finding the square root is the ..... operation of squaring.
15. Positive square root of a number is denoted by the symbol .....

III. Do as directed.

16. The students of a school have to stand for prayer in such a way that each row contains as many students as the number of rows. If the total number of students in the school is 1024, find the number of students in each row.
17. Find the smallest square number which is divisible by each of the numbers 2,3 and 4
18. Find the smallest multiple of 512 which gives a perfect square. Also find the square root of that number.
19. Find the value of each of the following without calculating the squares.
    i) $27^2 - 26^2$ ii) $118^2 - 117^2$
20. Find the square root of the following using prime factorisation
    a) 5776 b) 4096 c) 7056 d) 2304 e) 6400
21. Find the least number which is divisible by each of the numbers 4,8 and 12.
22. Find the square root of the following using division method.
    a) 17.64 b) 13.69 c) 5.29
    d) 11664 e) 47089 f) 7744
23. Simplify $\sqrt{900} + \sqrt{0.09} + \sqrt{0.0009}$
24. The area of a rectangular field whose length is twice its breadth is $2450 m^2$. Find the perimeter of the field.
25. Find the length of a diagonal of a rectangle with dimensions 20 m by 15 m.
26. Find the least square number which is exactly divisible by 3, 4, 5, 6 and 8
27. Find the smllest number by which 9408 must be divided so that it be-

comes a perfect square. Also, find the square root of the perfect square so obtained.

28. What should be subtracted from 6249 to get a perfect square number? Also find its sqaure root.

29. If $\frac{x}{\sqrt{2.25}} = 550$, find the value of x.

30. Which of the following triplets are pythagorean

    i) (14,48,50) ii) (18,79,82)

Chapter - 7

CUBES AND CUBE ROOTS

I. Choose the correct answer.

1. The cube of 4 is

   a) 64 b) 16 c) 12 d) 4

2. The cube of an odd number is always a/an

   a) even number b) odd number

   c) prime number d) all of these

3. The ones' digit of the cube of the number 10709 is

   a) 1 b) 0 c) 7 d) 9

4. Which among the following is not a perfect cube?

   a) 1 b) 8 c) 9 d) 27

5. The value of 6^3 is

   a) 18 b) 2 c) 216 d) 6

6. Which of the following is the cube of its own?

   a) -1 b) -2 c) -3 d) -9

II. Fill in the blanks

7. 17 is a cube root of .....

8. If 72x is a perfect cube then x = ...

9. The cube root of 140 × 2450 is .....

10. $\sqrt[3]{5 \times 7 \times 7 \times 5 \times 7 \times 5}$ = ...

11. $(0.3)^3$ = ...

III. Do as directed

12. What is the smallest number by which the following numbers must be multiplied so that the product is a perfect cube? Also find cube root of new number.

    a) 392 b) 1944 c) 1323

13. What is the smallest number by which the following numbers must be divided so that the quotient is a perfect cube

    a) 2916 b) 3087 c) 648

14. Find the cube root of the following numbers by prime factorisation method.

    a) 5832 b) 17576 c) 19683

15. Write the digit in the one's place of the cube root of the following cube numbers.

Cube numbers	Ones' digit in cuberoot
a) 2744	
b) 2197	
c) 32768	
d) 15625	
e) 97336	

16. The volume of a box which is in the shape of a cube is 4913 inches. Find the dimensions of the box.

Chapter - 9

ALGEBRAIC EXPRESSIONS AND IDENTITIES

I. Choose the correct answer.

1. Which of the following is a binomial?

   a) 10y b) $3x^2$ c) a + b d) 8xy

2. Which of the following is a like term to -3x?

   a) 5x b) $3x^2$ c) 3y d) 8y

3. The value of 10 - (3x - 2) is

   a) 3x - 8 b) 30 - 20x c) 10 - 3x d) 12 - 3x

4. The expression for sum of numbers p and q subtracted from their product is

   a) p + q - pq b) pq - p + q c) pq - (p + q) d) pq + p - q

5. The value of the expression $5x^2$ - 2 when x = 3 is

   a) -12 b) 8 c) 43 d) 36

II. Fill in the blanks

6. Product of the monomials

   4p, $-7q^2$ and -7pq is .....

7. Area of a rectangle with length 4ab and breadth $6b^2$ is .....

8. Square of 3x - 4y is .....

9. The value of $(a+b)^2 - (a - b)^2$ is .....

10. Number of terms in the expression $a^2 + bc \times d$ is .....

11. The side of the squre of area $81y^2$ is .....

12. Sum of 2x - 3 and $5x^2 + 4$ is .....

13. $\left(\frac{-4}{3}pq^2\right)\times\left(\frac{-6}{8}p^3q^2\right)$ = ...

14. Coefficient of y in $5x^2 - \frac{y}{3}$ is .....

III. Match the following

15. y^2, y^3,$2y^4$ i) Binomial

16. $\frac{-3}{y}+7$ ii) Unlike terms

17. x + z - y iii) Monomial

18. $125b^3$ iv) Like terms

19. p^2q, $4qp^2$, $\frac{2}{3}p^2q$ v) Trinomial

IV. Do as directed

20. Find the product of (3.5p - 0.2q) and (3.5p + 0.2q)

21. Find area of parallelogram of height $\frac{8}{9}$ yz and base $\frac{27}{40}$ xy respectively.

22. Solve (5x - 3) (5x - 2) using suitable identity.

23. Expand the following using identities.

    a) $(0.4p + 1.2q)^2$ b) (x + 5) (x + 4)

    c) $(2m - \frac{3}{2}n)^2$ d) $\left(\frac{2}{3}+\frac{b}{4}\right)^2$

24. Add $8x^2 + 7xy - 6y^2$, $4x^2 - 3xy + 2y^2$ and $-4x^2 + xy - y^2$

25. Simplify

    a) $a^2(b^2 - c^2) + b^2(c^2 - a^2) + c^2(a^2 - b^2)$

    b) $x^2(x - 3y^2) - xy(y^2 - 2xy) - x(y^3 - 5x^2)$

    c) $2x^2(x+2) - 3x(x^2 - 3) - 5x(x + 5)$

    d) $\frac{7.87\times7.87-1.72\times1.72}{6.15}$

    e) $\frac{3.7\times3.7+2.3\times2.3+2\times3.7\times2.3}{4.6\times4.6-3.4\times3.4}$

26. Using identities find

    a) 48^2 b) 96^2 c) $231^2 - 131^2$

d) 97×103 e) $181^2 - 19^2$ f) $1.62 \times 1.62 - 0.38 \times 0.38$

g) $203^2 - 197^2$ h) $983^2 - 17^2$

27. Verify

$(11pq + 4q)^2 - (11pq - 4q)^2 = 176\ pq^2$

28. If $x - y = 9$ and $xy = 16$ find the value of $x^2 + y^2$

29. Multiply $x^2 + 2y$ by $x^3 - 2xy + y^3$ and find the value of the product for $x = 1$ and $y = -1$

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