



DELHI PUBLIC SCHOOL, BHILAI

DATE : 18.09.2021
CLASS : X

MID TERM EXAMINATION (2021-22)
SUBJECT – ARTIFICIAL INTELLIGENCE

Time : 2 Hours
Max. Marks : 50

NOTE:

1. Question paper consists of two sections, Part A and Part B
2. Part A consists of Objective type questions of **20 marks**.
3. Part B consists of Subjective type questions of **30 marks**.

Part – A

I. Fill in the blanks

(1x5=5)

- a) _____ is the loudness and softness of a speaker's voice.
- b) _____ is the subset of Machine Learning.
- c) Normal IT cycle ends with the _____.
- d) AI system cannot _____ data.
- e) During the early period, the research in the AI system was restricted to _____.

II. State True/ False

(1x5=5)

- a) A Communication cycle does not include social media Outlets.
- b) Alan Turing coined the term Artificial Intelligence in 1956.
- c) Data modelling is the third stage of AI project cycle.
- d) The variable name roll no and ROLLNO are same.
- e) Lists in python cannot be modified while tuples can.

III. Choose the correct option

(1x10=10)

1. What is the datatype of **print (type (25))**?
a) float b) int c) string d) integer
2. Which of the following activity is not a part of Evaluation and Deployment stage?
a) Evaluation b) Tuning c) Review d) Exploration
3. What is the output of the following code – **print (4%8)**
a) 4 b) 8 c) 10 d) 16
4. Which of the following steps comes first?
a) Problem scoping b) Problem Identification c) Both a and b d) None
5. The decision to purchase the cheapest computer in the shop will be a _____ decision.
a) Structured b) Unstructured c) Semi – Structured d) None
6. Which of the following is NOT a part of Natural Language Generation?
a) Text Planning b) Text Analysing c) Both a and b d) None
7. The important factors of communication are –
a) Content b) Process c) Context d) All of these
8. The _____ barriers occur due to factors which are outside out body and mind.
a) External b) Internal c) Both a and b d) None
9. With which of the following activity does the AI project cycle start?
a) Brain storming b) Resource allocation c) Problem Defining d) Goal Setting
10. Which of the following technology is predominantly used by Amazon Alexa?
a) Image Recognition b) Speech Recognition c) Robotics d) Neural stems

Part – B

1. What is meant by Communication Cycle? **(2)**
2. Differentiate between Machine learning and algorithm. **(2)**
3. Define AI. Mention any two fields closely related to AI. **(2)**
4. Write the data types in Python. **(2)**
5. Give the names of various fields which are closely related to Artificial Intelligence. **(3)**
6. Define the three domains of AI. **(3)**
7. Write short note on Big Data. **(3)**
8. Write a program in python to find the area of a circle with radius 3.5 cm **(3)**
9. How is an AI project cycle different from an IT project cycle? **(5)**
10. Write a program in python to find the largest number among the three entered numbers. **(5)**



दिल्ली-पब्लिक-स्कूल-भिलाईनगरम्

दिनाङ्कः - 25.09.2021

अर्द्धवार्षिकी परीक्षा 2021-22

समयः - होरात्रयम्

कक्षा - दशमी

विषयः - संस्कृतम्

पूर्णाङ्काः - 80

'क' भागः (अनुप्रयुक्त-व्याकरणम् - 40 अङ्काः)

रेखाङ्कितपदानां सन्धिं विच्छेदं वा विकल्पेभ्यः चित्वा लिखत -

(1x7=7)

- 1) जगदीशः सर्वान् रक्षति ।
(क) जगत् + ईशः (ख) जग + एशः (ग) जगात् + इशः
- 2) अस्मात् + नगरात् मां दूरं नय ।
(क) नगरास्मान् (ख) अस्मान्नगरात् (ग) अस्मन्नगरत्
- 3) अन्योऽपि बुद्धिमान् महतो भयात् मुच्यते ।
(क) अन्यः + अपि (ख) अन्या + पि (ग) अन्यो + पि
- 4) युस्मत् + दर्शनात् कुशलम् इव ।
(क) युस्मात्दर्शनात् (ख) दर्शनात्युष्मात् (ग) युष्मदर्शनात्
- 5) कश्चित् कृषकः क्षेत्रकर्षणम् अकरोत् ।
(क) कः + चित् (ख) का + चित् (ग) चित् + क
- 6) शिशुजनः + वयः अनुरोधत् लालनीयः एव ।
(क) शिशुजन वयः (ख) जनशिशुवयः (ग) शिशुजनो वयः
- 7) सरोवरे बालकः + तरति ।
(क) बालकस्तरति (ख) तरतिबालकः (ग) बालकातरति

रेखाङ्कितपदानां समासं विग्रहं वा विकल्पेभ्यः चित्वा लिखत -

(1x7=7)

- 8) महानगराणां मध्ये अनिशं चलति । (क) मध्येनगराणाम् (ख) महानगरमध्ये (ग) नगरमध्ये
 - 9) भीमार्जुननकुलाः वनम् अगच्छन् । (क) भीमः च अर्जुनः च नकुलः च
(ख) अर्जुनः च भीमः च
(ग) भीमः च अर्जुनः च
 - (10) लवः च कुशः च रामस्य पुत्रौ आस्ताम् । (क) लवकुशौ (ख) लवकुशाः (ग) कुशलवम्
 - (11) ग्रामगतः जनः प्रसन्नः भवति । (क) ग्रामं गतः (ख) गता ग्रामः (ग) ग्रमस्य गतः
 - (12) विद्यया हीनः नरः न शोभते । (क) विद्याहीनः (ख) विद्यहीनः (ग) विद्याविहनः
 - (13) राज्ञः पुत्रः देउला-ग्रामे अवसत् । (क) राजपुत्रः (ख) पुत्रराजा (ग) राजपुत्रः
 - (14) लताः च तरवः च गुल्माः च पिष्टाः न भवन्तु । (क) लतातरुगुल्माः (ख) गुल्मातरु (ग) तरुगुल्मौ
- स्थूलपदानां प्रकृति-प्रत्ययं विभज्य संयोज्य वा लिखत -
- (1x7=7)
- (15) बालिका मनोहर + टाप् आसीत् । (क) मनोहरः (ख) मनोहरा (ग) हरमनो
 - (16) आम्रवृक्षे कोकिलाः कूजन्ति । (क) कोकिल+टा (ख) कोकिल + टाप् (ग) कोकिल+ ला
 - (17) ग्रामे वृद्धा न्यवसत् । (क) वृ + टाप् (ख) वृद्ध + टा (ग) वृद्ध + टाप्
 - (18) विद्यायाः महत्त्वम् सर्वे जानन्ति । (क) महत् + टा (ख) महत् + त्व (ग) महा + त्वा
 - (19) बुद्धि + मतुप् ज्ञानं लभते । (क) बुद्धिमन्तः (ख) बुद्धिमान् (ग) बुद्धिमद्भ्यः
 - (20) वानरस्य चञ्चलत्वं बालेभ्यः रोचते । (क) चञ्चल+ता (ख) चञ्चल+त्व (ग) चञ्चल+त्वा
 - (21) विद्यावान् सुखं प्राप्नोति । (क) विद्या+क्त्वा (ख) विद्या+त्व (ग) विद्या+मतुप्
- विकल्पेभ्यः उचितम् उत्तरं चित्वा रिक्तस्थानानि पूरयत -
- (1x7=7)
- (22) रमेशः ----- वाराणसीं गमिष्यति ? (क) च (ख) अत्र (ग) कदा
 - (23) कच्छपः ----- चलति । (क) शनैः (ख) श्वः (ग) कदा
 - (24) गीता रमा ----- पठतः । (क) च (ख) यदा (ग) ह्यः

Contd...2

- (25) यदि त्वं क्रीडिष्यसि ----- अहम् अपि क्रीडिष्यामि । (क) च (ख) उच्चैः (ग) तर्हि
 (26) अद्य रविवासरः अस्ति ----- शनिवासरः आसीत् । (क) तत्र (ख) अद्य (ग) ह्यः
 (27) ----- अस्माकं संस्कृतपरीक्षा अस्ति । (क) अद्य (ख) तत्र (ग) तावत्
 (28) समुद्रेषु वर्षा ----- भवति । (क) च (ख) तावत् (ग) वृथा

रेखाङ्कितपदानां कृते विकल्पेभ्यः उचितम् उत्तरं चित्वा लिखत - (1x4 = 4)

- (29) रमेशः प्रतिदिनं विद्यालयं गच्छामि । (क) गच्छामः (ख) गच्छति (ग) गच्छसि
 (30) त्वं पत्रं पठिष्यति । (क) पठिष्यावः (ख) पठिष्यन्ति (ग) पठिष्यसि
 (31) ते पत्रं लिखामः । (क) त्वम् (ख) वयम् (ग) बालकाः
 (32) अहं मधुरं फलं खादामि । (क) फलाः (ख) फलेभ्यः (ग) फलम्

विकल्पेभ्यः उचितम् उत्तरं चित्वा लिखत - (1x4 = 4)

- (33) राधिका प्रातः (5:15) ----- वादने उतिष्ठति । (क) पञ्च-सार्धं (ख) सपाद-पञ्च (ग) पञ्च
 (34) सा (6:30) ----- वादने भ्रमणाय गच्छति । (क) सार्ध-षट् (ख) षट् (ग) सप्त
 (35) (7:00) ----- वादने सा विद्यालयं गच्छति । (क) सार्ध- सप्त (ख) सप्त (ग) सपाद-सप्त
 (36) सा (9:45) ----- वादने अल्पाहरं करोति । (क) पादोन - दश (ख) दश (ग) सार्ध -दश

यथानिर्देशं विकल्पेभ्यः उचितम् उत्तरं चित्वा लिखत - (1x4 = 4)

- (37) 'बुद्धिमती व्याघ्रं ददर्श' अत्र 'ददर्श' इत्यस्य पर्यायपदं किम् अस्ति ?
 (क) अपठत् (ख) अपश्यत् (ग) अचलत्
 (38) 'संसारे जीवनं दुर्वहं जातम्' अत्र 'दुर्वहम्' अस्य पर्यायपदं किं लिखितम् ?
 (क) सरलम् (ख) काठिन्यम् (ग) संसारम्
 (39) 'सः तु दुर्बलः इति जानन् अपि कृषकः तं पीडयति' अत्र 'दुर्बलः' इत्यस्य विलोमपदं किम् अस्ति ?
 (क) जननी (ख) सबलः (ग) कृषकः
 (40) 'कज्जलमलिनं धूमं मुञ्चति' अत्र 'मुञ्चति' इत्यस्य विलोमपदं किम् अस्ति ?
 (क) लिखति (ख) गृह्णाति (ग) पठति

'ख' भागः (पठित- अवबोधनम्- 40 अङ्काः)

41. अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत - (6)

कश्चित् कृषकः बलीवर्दाभ्यां क्षेत्रकर्षणं कुर्वन्नासीत् । तयोः बलीवर्दयोः एकः शरीरेण दुर्बलः
 जवेन गन्तुमशक्तश्चासीत् । कृषकः तं दुर्बलं वृषभं तोदनेन नुद्यमानः अवर्तत । सः ऋषभः हलमूढ्या
 गन्तुमशक्तः क्षेत्रे पपात । क्रुद्धः कृषीवलः तमुत्थापयितुं बहुवारं यत्नमकरोत् । तथापि वृषः
 नोत्थितः।

- i. एकपदेन उत्तरत - (केवलं प्रश्नद्वयम्) (1x2=2)
 (क) कृषकः काभ्यां क्षेत्रकर्षणं अकरोत् ? (ख) कः नोत्थितः ? (ग) ऋषभः कुत्र पपात ?
 ii. पूर्णवाक्येन उत्तरत - (केवलं प्रश्नद्वयम्) (1x2=2)
 (क) सः ऋषभः कथं क्षेत्रे पपात ? (ख) बलीवर्दयोः एकः कीदृशः आसीत् ?
 (ग) क्रुद्धः कृषीवलः किमर्थं यत्नमकरोत् ?
 iii. निर्देशानुसारम् उत्तरत - (केवलं प्रश्नद्वयम्) (1x2=2)
 (क) 'क्रुद्धः कृषीवलः' अनयोः पदयोः विशेषणपदं किम् ?
 (ख) 'अकरोत्' इति क्रियायाः कर्तृपदं किम् अस्ति ? (i) कृषीवलः (ii) क्रुद्धः (iii) तम्
 (ग) 'कृषकः' अस्य पर्यायपदं किम् अस्ति ? (i) दुर्बलः (ii) कृषीवलः (iii) बलीवर्दः

42. अधोलिखितं पद्यांशं पठित्वा प्रश्नान् उत्तरत -

(6)

प्रस्तरतले लतातरुगुल्माः नो भवन्तु पिष्टाः।
पाषाणी सभ्यता निसर्गे स्यान्न समाविष्टा ॥
मानवाय जीवनं कामये नो जीवन्मरणम् ।
शुचिः-----॥

i. एकपदेन उत्तरत - (केवलं प्रश्नद्वयम्)

(1x2= 2)

(क) कुत्र लतातरुगुल्माः पिष्टाः न भवन्तु ? (ख) पाषाणी सभ्यता कुत्र समाविष्टा न स्यात् ?
(ग) कविः मानवाय किं कामयते

ii. पूर्णवाक्येन उत्तरत -(केवलं प्रश्नद्वयम्)

(1x2=2)

(क) कीदृशी सभ्यता निसर्गे समाविष्टा न स्यात् ? (ख) प्रस्तरतले के पिष्टाः न भवन्तु ?
(ग) कविः कस्मै जीवनं कामयते ?

iii. निर्देशानुसारम् उत्तरत - (केवलं प्रश्नद्वयम्)

(1x2=2)

(क) 'पाषाणी सभ्यता' अनयोः पदयोः विशेष्यपदं किम् ?
(ख) 'जीवनम्' अस्य विलोमपदं पद्यांशे किम् ? (i) मरणम् (ii) मानवाय (iii) सभ्यता
(ग) 'निसर्गे' अस्य पर्यायपदं किम् ? (i) प्रकृतौ (ii) तले (iii) कामये

43. अधोलिखितं नाट्यांशं पठित्वा प्रश्नान् उत्तरत -

(6)

(सिंहासनस्थः रामः । ततः प्रविशतः विदूषकेनोपदिश्यमानमार्गो तापसौ कुशलवौ)

विदूषकः - इत इत आर्यो !

कुशलवौ - (रामम् उपसृत्य प्रणम्य च) अपि कुशलं महाराजस्य ?

रामः - युष्मद्दर्शनात् कुशलमिव । भवतोः किं वयमत्र कुशलप्रश्नस्य भाजनम् एव, न
पुनरतिथिजनसमुचितस्य कण्ठाक्षेपस्य । (परिष्वज्य) अहो हृदयग्राही स्पर्शः ।

उभौ - राजासनं खल्वेतत्, न युक्तमध्यासितुम् ।

रामः - सव्यवधानं न चरित्रलोपाय । तस्मादङ्कव्यवहितमध्यास्यतां सिंहासनम् ।
(अङ्कमुपवेशयति)

उभौ - (अनिच्छां नाटयतः) राजन् ! अलमतिदाक्षिण्येन ।

i. एकपदेन उत्तरत - (केवलं प्रश्नद्वयम्)

(1x2= 2)

(क) सिंहासने कः आसीत् ? (ख) लवकुशौ कं प्रणमतः ? (ग) कौ अनिच्छां नाटयतः ?

ii. पूर्णवाक्येन उत्तरत -(केवलं प्रश्नद्वयम्)

(1x2= 2)

(क) लवकुशयोः स्पर्शः कीदृशः आसीत् ? (ख) लवकुशौ केन उपदिश्यमानौ प्रविशतः ?
(ग) 'इत इत आर्यो' इति कः कथयति ?

iii. निर्देशानुसारम् उत्तरत - (केवलं प्रश्नद्वयम्)

(1x2=2)

(क) 'तापसौ लवकुशौ' अनयोः पदयोः विशेष्यपदं किम् ?
(ख) 'नत्वा' अस्य पर्यायपदं नाट्यांशे किम् अस्ति ? (i) प्रणम्य (ii) कुशलम् (iii) राजानम्
(ग) 'अकुशलम्' अस्य विलोमपदं किम् अस्ति ? (i) आर्य (ii) कुशलम् (iii) दर्शनम्

44. रेखाङ्कितपदम् आधृत्य प्रश्ननिर्माणं कुरुत -(केवलं षट्)

(1x6 =6)

(क) व्याघ्रं दृष्ट्वा धूर्तः शृगालः अवदत् ।

(ख) सुराधिपः ताम् अपृच्छत् ।

(ग) महानगरेषु वाहनानाम् अनन्ताः पङ्क्तयः धावन्ति ।

(घ) धेनूनां माता सुरभिः आसीत् ।

(ङ) रामस्य समीपम् उपसृत्य प्रणम्य च अवदत् ।

(च) तपोवने तस्य नाम कोऽपि न व्यवहरति ।

(छ) सर्वेषु अपत्येषु जननी तुल्यवत्सला भवति ।

45. मञ्जूषातः पदानि चित्वा अन्वयं पूरयत -

(1x4=4)

निजबुद्ध्या विमुक्ता सा भयाद् व्याघ्रस्य भामिनी ।
अन्योऽपि बुद्धिमाँल्लोके मुच्यते महतो भयात् ॥

अन्वयः - सा भामिनी ---- व्याघ्रस्य भयाद् ----- । लोके अन्यः ---- अपि महतो ---- मुच्यते

निजबुद्ध्या , बुद्धिमान् , विमुक्ता, भयात्

46. अधोलिखितानि वाक्यानि कथाक्रमानुसारं लिखत -

(½ x 8 = 4)

- (i) बुद्धिमती पितुर्गृहं प्रति चलिता ।
- (ii) मार्गं सा एकं व्याघ्रम् अपश्यत् ।
- (iii) देउलाख्यो ग्रामे राजसिंहः नाम राजपुत्रः वसति स्म ।
- (iv) सा धाष्ट्यात् पुत्रौ चपेटया अमारयत् ।
- (v) कश्चित् धूर्तः शृगालः हसन् अवदत् ।
- (vi) गलबद्धशृगालकः व्याघ्रः ततः नष्टः ।
- (vii) त्वं मानुषात् अपि बिभेषि ।
- (viii) पुरा त्वया मह्यं व्यघ्रत्रयं दत्तम् ।

47. अधोलिखितानि पर्यायपदानि मेलयत --

(1x4= 4)

'क' स्तम्भः

'ख' स्तम्भः

- | | |
|------------------|------------------|
| i. जवेन | (क) नेत्राभ्याम् |
| ii. पुत्राः | (ख) तीव्रगत्या |
| iii. चक्षुभ्याम् | (ग) वासवः |
| iv. इन्द्रः | (घ) सुताः |

48. विलोमपदानि मेलयत -

(1x4=4)

'क' स्तम्भः

'ख' स्तम्भः

- | | |
|----------------|--------------|
| (i) दूषितम् | (क) मानवाय |
| (ii) समलम् | (ख) पाषाणम् |
| (iii) दानवाय | (ग) निर्मलम् |
| (iv) प्रस्तरम् | (घ) शुचि |

ॐॐॐ ॐॐॐ



दिल्ली पब्लिक स्कूल, भिलाई

दिनांक - 25.09.2021
कक्षा - दसवीं

अर्धवार्षिक परीक्षा, 2021-22
विषय - हिंदी

समय - 3 घण्टे
पूर्णांक - 80

निर्देश :

- (क) इस प्रश्न-पत्र के दो खण्ड हैं। क और ख।
- (ख) दोनों खण्डों के प्रश्नों के उत्तर देना अनिवार्य है।
- (ग) यथासंभव प्रत्येक खंड के उत्तर क्रमशः दीजिए।

खण्ड - 'क'

प्रश्न 01. निम्नलिखित गद्यांशों को पढ़कर पूछे गए प्रश्नों के उत्तर सबसे उपयुक्त विकल्प चुनकर दीजिए - (5+5+5+5=20)

- (क) सारा संसार नीले गगन के तले अनंत काल से रहता आया है। हम थोड़ी दूरी तक ही देखते हैं—क्षितिज तक, जहाँ धरती और आकाश हमें मिलते दिखाई देते हैं। लेकिन जब हम वहाँ पहुँचते हैं, तो यह नज़ारा आगे खिसकता चला जाता है और इस नज़ारे का कोई ओर-छोर नहीं दिखाई देता। ठीक इसी तरह हमारा जीवन भी है। जिंदगी की न जाने कितनी उपमाएँ दी जा चुकी हैं, लेकिन कोई भी उपमा पूर्ण नहीं मानी गई, क्योंकि जिंदगी के इतने पक्ष हैं कि कोई भी उपमा उस पर पूरी तरह फिट नहीं बैठती। बर्नार्ड शॉ जीवन को एक खुली किताब मानते थे, और यह भी मानते थे कि सभी जीवों को समान रूप से जीने का हक है। वे चाहते थे कि इन्सान अपने स्वार्थ में अंधा होकर किसी दूसरे जीव के जीने का हक न मारे। यदि इन्सान ऐसा करता है, तो यह बहुत बड़ा अन्याय है। हमारे विचार स्वाभाविक रूप से एक-दूसरे से मेल नहीं खाते हैं, लेकिन इसका मतलब यह नहीं होता कि हम दूसरों को उसके जीने के हक से वंचित कर दें। यह खुला आसमान, यह प्रकृति और यह पूरा भू-मंडल हमें दरअसल यही बता रहा है कि हाथी से लेकर चींटी तक, सभी को समान रूप से जीवन बिताने का हक है। जिस तरह से खुले आसमान के नीचे हर प्राणी बिना किसी डर के जीने, साँस लेने का अधिकारी है, उसी तरह से मानव-मात्र का स्वभाव भी होना चाहिए कि वह अपने जीने के साथ दूसरों से उनके जीने का हक न छीने। यह आसमान हमें जिस तरह से भय से छुटकारा दिलाता है, उसी तरह हमें भी मानव-जाति से इतर जीवों को डर से छुटकारा दिलाकर उन्हें जीने के लिए पूरा अवसर देना चाहिए। दूसरों के जीने के हक को छीनने से बड़ा अपराध या पाप कुछ नहीं हो सकता।

प्रश्न 1. हमारा जीवन किस प्रकार का है ?

- (क) पाप व अपराध में लिप्त
- (ख) एक रहस्य की तरह
- (ग) खुले आसमान की तरह
- (घ) इनमें से कोई नहीं

2. सबसे बड़ा पाप क्या है ?

- (क) अन्याय करना
- (ख) डर के साये में जीना
- (ग) दूसरों से जीने का हक छीनना
- (घ) उपर्युक्त सभी

3. बर्नार्ड शॉ जीवन को क्या मानते थे ?

- (क) खुला आसमान
- (ख) एक खुली किताब
- (ग) बड़ा अपराध
- (घ) रहस्यमयी किताब

4. धरती और आकाश कहाँ मिलते दिखाई देते हैं ?

- (क) क्षितिज पर
- (ख) भू-मंडल में
- (ग) नीले गगन में
- (घ) इनमें से कोई नहीं

5. इन्सान को किसमें अंधा नहीं होना चाहिए ?

- (क) अहंकार में
- (ख) स्वार्थ में
- (ग) उपर्युक्त दोनों
- (घ) इनमें से कोई नहीं

- (ख) हम कार्यरत हैं और उस कार्य में अगर सफलता नहीं मिलती है तो हम हताश होकर कह उठते हैं कि ऐसा होना मेरे भाग्य में नहीं था, अतः हमारा यह कार्य पूर्ण नहीं हुआ। हम भाग्य को दोष देने लगते हैं और भाग्य को ही सर्वोपरि रखते हैं जबकि कुछ लोग कर्म को ही प्रधान मानते हैं। वे कहते हैं कि कर्म से बढ़कर कुछ नहीं। एक पौराणिक प्रसंग के अनुसार एक बार नारद जी भगवान श्रीहरि के पास बैकुंठधाम गए। श्रीहरि ने उन्हें आता देख उनका प्रणाम स्वीकार कर आने का कारण पूछा। तब श्रीहरि से नारद जी ने कहा, "प्रभु पृथ्वी पर अब आपका प्रभाव कम हो रहा है। धर्म-कर्म पर चलने वालों को कोई अच्छा फल नहीं मिल रहा है।" तब श्रीहरि ने कहा, "ऐसा नहीं है, देवर्षि! जो होता है सब नियति के कारण होता है, आपने ऐसा क्या देखा लिया?" तब मानस पुत्र ने भगवान विष्णु से कहा, "मैंने आज जंगल के दलदल में फँसी एक गाय को देखा, उसको बाहर निकालने में कोई सहायता नहीं कर रहा था। एक चोर वहाँ से गुज़रा। गाय को बाहर निकालने के बजाय वह उसके ऊपर पैर रखकर चला गया। इतना ही नहीं प्रभु, आगे जाकर उसे स्वर्ण मुद्राओं से भरी एक थैली मिली। थोड़ी देर में वहाँ से एक साधु गुज़रा। उसने गाय को बाहर निकाला किंतु यह क्या, भगवन! वह आगे जाकर एक गड्ढे में गिर गया। यह कौन-सा न्याय है नारायण?" तब लक्ष्मीपति ने देवर्षि से कहा, "जिस चोर को स्वर्ण मुद्राएँ मिलीं उसकी किस्मत में बड़ा ख़ज़ाना था, किंतु इस पाप के कारण उसे नहीं मिला, जबकि साधु ने पुण्य करके अपनी मृत्यु को टाल दिया और गड्ढे में गिरकर उसकी मृत्यु छोटी-सी चोट में परिवर्तित हो गई। अब तो आपको यह विश्वास हो गया होगा कि मनुष्य के कर्मों से ही उसके भाग्य की रूपरेखा बनती है। अतः हर मनुष्य को केवल अपना कर्म करना चाहिए, भाग्य के भरोसे नहीं बैठना चाहिए।" जैसा कि श्रीकृष्ण द्वारा गीता में भी कहा गया है 'कर्मण्येवाधिकारस्ते मा फलेषु कदाचन' सच में कर्म हमारे हाथों की लकीरों को बदल देते हैं।

- प्रश्न 1. 'कर्मण्येवाधिकारस्ते मा फलेषु कदाचन' यह उक्ति किस भाषा में है ?
 (क) संस्कृत भाषा में (ख) हिंदी भाषा में (ग) उर्दू भाषा में (घ) पंजाबी भाषा में
2. मनुष्य को सफलता न मिले तो वह किसे दोष देता है ?
 (क) नियति को (ख) अपनी माता का (ग) भाग्य को (घ) अध्यापक को
3. मनुष्य के भाग्य की रूपरेखा कैसे बनती है ?
 (क) उसके कर्मों से (ख) पाप करने से (ग) भाग्य के भरोसे बैठने से (घ) इनमें से कोई नहीं
4. किसने पुण्य करके अपनी मृत्यु को टाल दिया ?
 (क) साधु ने (ख) नारद जी ने (ग) चोर ने (घ) गाय ने
5. प्रस्तुत गद्यांश में भगवान विष्णु के किन-किन अन्य नामों का उल्लेख हुआ है ?
 (क) श्रीहरि (ख) श्रीहरि, विष्णु
 (ग) श्रीहरि, नारायण, लक्ष्मीपति (घ) श्रीहरि, विष्णु, नारायण, लक्ष्मीपति

ग. भिखारी की भाँति गिड़गिड़ाना प्रेम की भाषा नहीं है। यहाँ तक की मुक्ति के लिए भगवान की उपासना करना भी अधम उपासना में गिना जाता है। प्रेम कोई पुरस्कार नहीं चाहता। प्रेम में आतुरता नहीं होती। प्रेम सर्वथा प्रेम के लिए ही होता है। भक्त इसलिए प्रेम करता है कि बिना प्रेम किए वह रह नहीं सकता। जब हम किसी मनोहर प्राकृतिक दृश्य को देखकर उस पर मुग्ध हो जाते हैं तो उस दृश्य से हम किसी फल की याचना नहीं करते और न ही वह दृश्य ही हमसे कुछ चाहता है; तो भी वह दृश्य हमें बड़ा आनंद देता है। वह हमारे मन को पुलकित और शांत कर देता है और हमें साधारण सांसारिकता से ऊपर उठाकर एक स्वर्गीय आनंद से सरोबार कर देता है, इसलिए प्रेम के बदले कुछ माँगना प्रेम का अपमान करना है। प्रेम करना नंगी तलवार की धार पर चलने जैसा है क्योंकि स्वार्थ के लिए तो सभी प्रेम करते हैं, पर उसे निभाते नहीं। वे पाना चाहते हैं, देना नहीं। वे वस्तुतः प्रेम शब्द को कलंकित करते हैं।

- प्रश्न 1. प्रेम की भाषा नहीं है—
 (क) लड़ना-झगड़ना (ख) भिखारी की भाँति गिड़गिड़ाना
 (ग) भगवान की उपासना करना (घ) प्रेम का अपमान करना
2. प्रेम में क्या-क्या नहीं होता ?
 (क) आतुरता (ख) स्वार्थ भावना (ग) पुरस्कार (घ) उपर्युक्त सभी
3. गद्यांश में प्रेम को कैसा बताया गया है ?
 (क) पुलकित और शांत (ख) नंगी तलवार की धार पर चलने जैसा
 (ग) सांसारिकता से ऊपर (घ) इनमें से कोई नहीं
4. प्रेम में कौन सा भाव होता है ?
 (क) आतुरता का (ख) अपमान का (ग) स्वार्थ का (घ) समर्पण का
5. भक्त और भगवान के बीच कैसा प्रेम होना चाहिए ?
 (क) निःस्वार्थ (ख) भिखारी की भाँति (ग) स्वार्थपूर्ण (घ) इनमें से कोई नहीं

घ. किसी भी देश की पहचान उस देश के नागरिकों से होती है। यदि देश के नागरिक सभ्य, सुसंस्कृत तथा देश के प्रति समर्पित हैं तो उस देश की उन्नति निश्चित समझो। अतः सभी मनुष्यों का दायित्व है कि देश एवं समाज के प्रति अपने कर्तव्यों का पालन पूरी निष्ठा एवं ईमानदारी से करें। हम अपने लिए तो सब कुछ चाहते हैं किंतु करना कुछ नहीं चाहते। हमारे लिए अधिकार सर्वोपरि हैं और हम अपने कर्तव्यों से विमुख हो जाते हैं। हम अपने अधिकारों के लिए धरना देते हैं, दूसरों को कोसते हैं, तरह-तरह के आरोप-प्रत्यारोप लगाते हैं, किंतु अपने कर्तव्यों को पूरी तरह अनदेखा कर देते हैं। प्रत्येक नागरिक में यदि देश के प्रति सकारात्मक सोच हो तो ऐसा देश उन्नति के पथ पर अग्रसर रहता है। कई बार हम अपने व्यक्तिगत स्वार्थ के लिए सामाजिक हित को अनदेखा कर देते हैं। इस प्रवृत्ति के कारण देश की प्रगति अवरुद्ध हो जाती है। इससे व्यक्ति तथा समाज का समुचित विकास नहीं हो पाता और ऐसा राष्ट्र आदर्श राष्ट्र नहीं बन पाता। कुछ छोटी-छोटी बातों जैसे-सार्वजनिक स्थानों पर गंदगी न फैलाना, शौचालयों का प्रयोग करना, वैवाहिक आदि कार्यक्रमों में लाउडस्पीकर का मंद आवाज़ में प्रयोग करना, प्रतिबंधित क्षेत्रों में प्रवेश न करना, असहायों की सहायता करना, रिश्वतखोरी से दूर रहना आदि ऐसे न जाने कितने कर्तव्य हैं, जिनका पालन कर हम देश की प्रगति में सहयोग कर सकते हैं। हमें याद रखना चाहिए, जब-जब देश के नागरिकों ने उपर्युक्त दुर्गुणों को अपनाया, उन्हें गुलामी की जंजीरों ने जकड़ा और जब हम एकजुट हुए और हमने अपने कर्तव्यों का पालन किया, पूरा आसमान हमने अपनी मुट्ठी में बंद कर लिया।

- प्रश्न 1. किसी भी देश की पहचान कैसे होती है ?
 (क) उसकी उन्नति से (ख) देश के नागरिकों से
 (ग) नागरिकों के अधिकारों से (घ) समाज की समुचित व्यवस्था से
2. प्रत्येक नागरिक को देश के प्रति कैसी सोच रखनी चाहिए ?
 (क) सकारात्मक (ख) नकारात्मक (ग) स्वार्थपूर्ण (घ) इनमें से कोई नहीं
3. कौन-कौन से दुर्गुण देश के विकास में रोड़ा बनते हैं ?
 (क) धरना देना और रिश्वत लेना (ख) कर्तव्यों का पालन न करना
 (ग) केवल स्वयं के बारे में सोचना (घ) उपर्युक्त सभी
4. देश किन परिस्थिति में गुलाम बना ?
 (क) जब लोगों ने अपने कर्तव्यों का पालन नहीं किया (ख) जब लोगों ने रिश्वत लेना शुरू कर दिया
 (ग) जब लोगों ने कई बुरे कामों में स्वयं को लिप्त किया (घ) उपर्युक्त सभी

5. पूरा आसमान हमारी मुट्ठी में कब बंद हो जाता है ?
(क) जब हम एकजुट होकर कर्तव्यों का पालन करते हैं
(ख) जब अधिकारों के लिए धरना देते हैं
(ग) दूसरों को कोसते हैं
(घ) इनमें से कोई नहीं

प्रश्न 02. निम्नलिखित वाक्यों में रेखांकित पदबंधों के भेद बताइए : (1x5=5)

- (i) नरेश रोज मंदिर जाता रहता है।
(क) संज्ञा पदबंध (ख) क्रियाविशेषण पदबंध (ग) क्रिया पदबंध (घ) विशेषण पदबंध
- (ii) बार-बार चली जाने वाली बिजली ने सबको परेशान कर दिया।
(क) सर्वनाम पदबंध (ख) क्रिया पदबंध (ग) विशेषण पदबंध (घ) संज्ञा पदबंध
- (iii) जादू की छड़ी एक विलक्षण रहस्य थी।
(क) संज्ञा पदबंध (ख) विशेषण पदबंध (ग) क्रिया पदबंध (घ) क्रियाविशेषण पदबंध
- (iv) प्रतिदिन की भाँति वह काम पर चला गया।
(क) क्रिया पदबंध (ख) सर्वनाम पदबंध (ग) क्रियाविशेषण पदबंध (घ) विशेषण पदबंध
- (v) रेलगाड़ी से ऊँघते हुए चेहरे बाहर झाँके।
(क) विशेषण पदबंध (ख) क्रिया पदबंध (ग) संज्ञा पदबंध (घ) क्रियाविशेषण पदबंध

प्रश्न 03. (अ) निर्देशानुसार सही वाक्य रूपांतरण चुनिए : (1x3=3)

- (i) बगल के कमरे में जाकर कुछ बर्तन ले आया। तौलिए से बर्तन साफ़ किया। (संयुक्त वाक्य)
(क) बगल के कमरे में जाकर कुछ बर्तन लाकर तौलिए से साफ़ किए।
(ख) बगल के कमरे में जाकर कुछ बर्तन लाया और तौलिए से उन्हें साफ़ किया।
(ग) जब बगल के कमरे में जाकर कुछ बर्तन लाया तब तौलिए से बर्तन साफ़ किए।
(घ) इनमें से कोई नहीं।
- (ii) वह मंत्री बन गया है। उसका व्यवहार पूर्ववत् है। (मिश्र वाक्य)
(क) मंत्री बन जाने पर भी उसका व्यवहार पूर्ववत् है।
(ख) यद्यपि वह मंत्री बन गया है, तथापि उसका व्यवहार पूर्ववत् है।
(ग) जब से वह मंत्री बन गया है तब से उसका व्यवहार पूर्ववत् है।
(घ) इनमें से कोई नहीं।
- (iii) वह संन्यासी है। वह आशीर्वाद देकर लापता हो गया। (सरल वाक्य)
(क) वह संन्यासी आशीर्वाद देकर लापता हो गया।
(ख) वह संन्यासी है और आशीर्वाद देकर लापता हो गया।
(ग) जो संन्यासी था, वह आशीर्वाद देकर लापता हो गया।
(घ) इनमें से कोई नहीं।

(ब) रचना की दृष्टि से वाक्य भेद पहचानिए : (1x2=2)

- (i) वह तेजी से आया परंतु उसने कुछ नहीं कहा।
(क) सरल वाक्य (ख) संयुक्त वाक्य (ग) मिश्र वाक्य (घ) इनमें से कोई नहीं।
- (ii) आज बहुत ठंड है अतः गरम कपड़े पहनकर आना।
(क) सरल वाक्य (ख) संयुक्त वाक्य (ग) मिश्र वाक्य (घ) इनमें से कोई नहीं।

प्रश्न 04. निम्नलिखित समस्त पदों के सही समास का विकल्प चुनकर लिखिए : (1x5=5)

- (i) पीतांबर (पीत है अंबर जिसका अर्थात् कृष्ण)
(क) द्वंद्व समास (ख) बहुव्रीहि समास (ग) द्विगु समास (घ) अव्ययीभाव समास
- (ii) काली मिर्च
(क) द्विगु समास (ख) कर्मधारय समास (ग) अव्ययीभाव समास (घ) द्वंद्व समास
- (iii) वचनामृत (अमृत के समान वचन)
(क) कर्मधारय समास (ख) द्वंद्व समास (ग) द्विगु समास (घ) अव्ययीभाव समास
- (iv) घुड़सवार
(क) अधिकरण तत्पुरुष (ख) करण तत्पुरुष (ग) अपादान तत्पुरुष (घ) इनमें से कोई नहीं
- (iii) बेशक
(क) अव्ययीभाव समास (ख) द्वंद्व समास (ग) द्विगु समास (घ) इनमें से कोई नहीं

प्रश्न 05. निर्देशानुसार उत्तर दीजिए : (1x5=5)

- (i) बिगाड़ देना के लिए सही मुहावरा है -
(क) पानी में आग लगाना (ख) पानी-पानी होना (ग) पानी फेर देना (घ) पानी भरना
- (ii) बड़ा काम करना के लिए सही मुहावरा है -
(क) पैरों पर खड़ा होना (ख) ठनक जाना (ग) हवा से बातें करना (घ) तीर मारना समास
- (iii) सच्चे शूरवीर देश की रक्षा में.....लगा देते हैं। रिक्त स्थान की पूर्ति सबसे सटीक मुहावरे से कीजिए।
(क) प्राणों की बाजी (ख) जान (ग) टोपी उछाल (घ) आहुति देना
- (iv) आस्तीन का साँप मुहावरे का सही वाक्य प्रयोग है :
(क) मुझे नहीं पता था कि वह आस्तीन का साँप निकलेगा। (ख) राम के घर में आस्तीन का साँप है।
(ग) श्याम की आस्तीन में साँप निकला (घ) क, ख, ग तीनों वाक्य का सही प्रयोग है।

- (v) चिकना घड़ा होना मुहावरे का सही वाक्य प्रयोग है।
 (क) तेल गिरने के कारण घड़ा चिकना हो गया है।
 (ख) उसके हाथ से चिकना घड़ा गिरकर टूट गया।
 (ग) क, ख सही वाक्य प्रयोग हैं।
 (घ) इनमें से कोई नहीं

खण्ड - 'ख'

प्रश्न 06. निम्नलिखित पद्यांशों को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए :

- (अ) ऐसी बाँणी बोलिये, मन का आपा खोइ।
 अपना तन सीतल करै, औरन कौं सुख होइ॥
 कस्तूरी कुंडलि बसै, मृग ढूँढ़ै बन माँहि।
 ऐसैं घटि घटि राम है, दुनियाँ देखै नाँहि॥
- (i) कवि के अनुसार कैसी वाणी बोलनी चाहिए और क्यों ? (2)
 (ii) कवि के अनुसार भगवान कहाँ बसते हैं ? (2)
 (iii) 'मन का आपा' का अर्थ क्या है ? (1)
- (ब) हरि आप हरो जन री भीर।
 द्रोपदी री लाज राखी, आप बढ़ायो चीर।
 भगत कारण रूप नरहरि, धर्यो आप सरीर।
 बूढ़तो गजराज राख्यो, काटी कुञ्जर पीर।
 दासी मीराँ लाल गिरधर, हरो म्हारी भीर॥
- (i) 'बूढ़तो गजराज राख्यो, काटी कुञ्जर पीर' का भाव क्या है ? (2)
 (ii) कौन किससे अपनी पीड़ा हरने के लिए कह रहा है ? (2)
 (iii) किसके प्राण-रक्षा के लिए हरि ने नरहरि का शरीर धारण किया था ? (1)

प्रश्न 07. निम्नलिखित गद्यांशों को पढ़कर पूछे गए प्रश्नों के उत्तर दीजिए :

- (अ) वह स्वभाव से बड़े अध्ययनशील थे। हरदम किताब खोले बैठे रहते और शायद दिमाग को आराम देने के लिए कभी कॉपी पर, किताब के हाशियों पर चिड़ियों, कुत्तों, बिल्लियों की तस्वीरें बनाया करते थे। कभी-कभी एक ही नाम या शब्द या वाक्य दस-बीस बार लिख डालते। कभी एक शेर को बार-बार सुंदर अक्षरों में नकल करते। कभी ऐसी शब्द-रचना करते, जिसमें न कोई अर्थ होता, न कोई सामंजस्य। मसलन एक बार उनकी कॉपी पर मैंने यह इबारत देखी-स्पेशल, अमीना, भाइयों-भाइयों, दरअसल, भाई-भाई! राधेश्याम, श्रीयुत राधेश्याम, एक घंटे तक-इसके बाद एक आदमी का चेहरा बना हुआ था। मैंने बहुत चेष्टा की कि इस पहेली का कोई अर्थ निकालूँ, लेकिन असफल रहा। और उनसे पूछने का साहस न हुआ। वह नौवीं जमात में थे, मैं पाँचवीं में।
- (i) लेखक ने किस पहेली का अर्थ निकालने की कोशिश की ? (2)
 (ii) बड़े भाई साहब दिमाग को आराम देने के लिए क्या करते थे ? (2)
 (iii) लेखक और उसके बड़े भाई में कितनी जमात का अंतर था ? (1)
- (ब) ऐसी एक घटना का जिक्र सिंधी भाषा के महाकवि शेख अयाज़ ने अपनी आत्मकथा में किया है। उन्होंने लिखा है - 'एक दिन उनके पिता कुएँ से नहाकर लौटे। माँ ने भोजन परोसा। उन्होंने जैसे ही रोटी का कौर तोड़ा, उनकी नज़र अपनी बाजू पर पड़ी। वहाँ एक काला च्योटा रँग रहा था। वह भोजन छोड़कर उठ खड़े हुए।' माँ ने पूछा, "क्या बात है? भोजन अच्छा नहीं लगा?" शेख अयाज़ के पिता बोले, 'नहीं, यह बात नहीं है। मैंने एक घरवाले को बेघर कर दिया है। उस बेघर को कुएँ पर उसके घर छोड़ने जा रहा हूँ।' बाइबिल और दूसरे पावन ग्रंथों में नूह नाम के एक पैगंबर का जिक्र मिलता है। उनका असली नाम लशकर था।
- (i) अयाज़ के पिता जी भोजन छोड़कर क्यों उठ खड़े हुए ? (2)
 (ii) पावन ग्रंथों में पैगंबर के किस नाम का जिक्र मिलता है? उनका असली नाम क्या था ? (2)
 (iii) शेख अयाज़ किस भाषा के कवि थे ? (1)

प्रश्न 08. निम्नलिखित प्रश्नों के उत्तर 50-60 शब्दों में दीजिए :

- (क) 'अब कहाँ दूसरे के दुःख से दुःखी होने वाले' पाठ के आधार पर आपके विचार से कौन-से मूल्य शाश्वत हैं ? वर्तमान समय में इन मूल्यों की प्रासंगिकता स्पष्ट कीजिए। (5)
 (ख) 'पद' पाठ में संकलित पदों के आधार पर मीरा की भक्ति भावना पर प्रकाश डालिए। (5)

प्रश्न 09. निम्नलिखित प्रश्नों के उत्तर दीजिए :

- (अ) (i) दीपक दिखाई देने पर अधियारा कैसे मिट जाता है ? (2)
 (ii) मीराबाई ने श्रीकृष्ण के रूप-सौंदर्य का वर्णन किस प्रकार किया है ? (3)
- (ब) (i) प्राचीन काल में मनोरंजन और शक्ति प्रदर्शन के लिए किस प्रकार के आयोजन किए जाते थे ? (2)
 (ii) पढ़ाई और परीक्षाओं के प्रति बड़े भाई साहब और छोटे भाई साहब के दृष्टिकोण में क्या मौलिक अंतर है ? (3)



DELHI PUBLIC SCHOOL, BHILAI

DATE : 16.09 .2021
CLASS : X

MID TERM EXAMINATION (2021-22)
Sub : ENGLISH LANGUAGE AND LITERATURE

Time : 3 Hours
M.M. : 80

General Instructions:

1. This paper is divided into two parts: A and B. All questions are compulsory.
2. Separate instructions are given with each section and question, wherever necessary. Read these instructions very carefully and follow them.
3. Do not exceed the prescribed word limit while answering the questions.

PART –A (40 Marks)

READING

(20 Marks)

1. Read the passage given below :

1. These days, it is not unusual to see people listening to music or using their electronic gadgets while crossing busy roads or travelling on public transport, regardless of the risks involved. I have often wondered why they take such risks: is it because they want to exude a sense of independence, or is it that they want to tell the world to stop bothering them? Or is it that they just want to show how cool they are?
2. Whether it is a workman or an executive, earphones have become an inseparable part of our lives, sometimes even leading to tragicomic situations. The other day, an electrician had come to our house to fix something. We told him in detail what needed to be done. But after he left, I found that the man had done almost nothing. It later turned out that he could not hear our directions clearly because he had his earphones on.
3. Hundreds of such earphones addicts commute by the Delhi Metro every day. While one should not begrudge anyone their moments of privacy or their love for music, the fact is 'iPod oblivion' can sometimes be very dangerous. Recently, I was travelling with my wife on the Delhi Metro. Since the train was approaching the terminus, there weren't too many passengers. In our compartment, other than us, there were only two women sitting on the other side of the aisle. And then suddenly, I spotted a duffel bag. The bomb scare lasted for several minutes. Then suddenly, a youth emerged from nowhere and picked up the bag. When we tried to stop him, he looked at us, surprised. Then he took off his earpieces, lifted the bag, and told us that the bag belonged to him and that he was going to get off at the next station.
4. We were stunned but recovered in time to ask him where he was all this while. His answer : he was in the compartment, leaning against the door, totally immersed in the music. He had no clue about what was going on around him. When he got off, ear plugs in his hand, we could hear strains of the song.

On the basis of your understanding of the passage, answer the following questions:

(1x10=10)

- (i) The reason for people listening to music or using their electronic gadgets while crossing busy roads or travelling on public transport is that they
(a) do not want to be disturbed (b) want to show how fashionable they are
(c) want to show their independence (d) All of these
- (ii) Why had the electrician done nothing?
(a) because he hadn't heard them. (b) because he was listening to music.
(c) because he was not interested in the job.
(d) because he couldn't understand what needed to be fixed.
- (iii) The electrician had
(a) Done his job (b) done almost nothing
(c) fixed the defective appliance (d) understood what was to be done
- (iv) Which of the following correctly lists the tone with which the author had written the passage?
1. Humorous 2. Contented 3. Serious 4. Informative 5. Resentful
(a) 1 and 5 (b) 2 and 4 (c) 3 and 5 (d) 1 and 4

Contd...2

- (v) 'iPod Oblivion' can be defined as
 (a) the popularity of music (b) the alertness of people in metro
 (c) the carelessness of people while listening to music
 (d) the forgetfulness of listening to music
- (vi) The author says that we should not resent people
 (a) indulging in their love for music (b) wanting privacy
 (c) Both (a) and (b) (d) Neither (a) nor (b)
- (vii) The bomb scare happened because the duffel bag was
 1. designated 2. unclaimed 3. familiar 4. suspicious 5. Eerie
 (a) 1 and 2 (b) 3 and 5 (c) 2 and 4 (d) 3 and 4
- (viii) The passengers were stunned because
 (a) The youth was careless (b) the bag contained a bomb
 (c) the youth had not been visible anywhere near the bag earlier (d) None of the above
- (ix) The word is an antonym of absorb.
 (a) exude (b) bothering (c) commute (d) stunned
- (x) The word is not the synonym of begrudge.
 (a) grudge (b) envy (c) stunned (d) resent

2. Read the passage given below :

1. Global warming has taken on alarming proportions since the mid 20th century and is continuing. Scientists have found that the main cause of these changes lies in the rapid increase in greenhouse gases. The greenhouse gas emission was primarily caused by forest fires, deforestation, and in this century, the emissions are arising from the burning of fossil fuels.
2. With increased global warming, weather conditions are becoming extreme. Areas where floods or droughts were unknown, are now witnessing the same due to global warming and greenhouse gas emissions, thunder storms and cyclones are also increasingly frequent. Winters are also getting shorter and summers are hotter.
3. The main sources of greenhouse gases are :
 - i) **Waste Water (2.8%)**
 Changes in temperature leads to sea level rising and storms and droughts being caused. These changes result in extreme weather conditions which lead to a larger amount of untreated wastewater, affecting our climate.
 - ii) **Transportation (13.1%)**
 The increase of vehicles on the road, leads to greenhouse emissions as they are powered by petrol and diesel and release carbon and other pollutants, into the air.
 - iii) **Forestry (17.4%)**
 Millions of acres of forests are cleared every year, for wood-based products, making paper, for farming and ranching, or for residential and industrial areas.
 - iv) **Agriculture (13.5%)**
 The practice of large land holdings negates the effects of agricultural production. Keeping animals in large numbers produces methane, and the use of antibiotics in animal farming is harmful for humans.
 - v) **Consumerism / Industry (19.4%)**
 Our craving for the latest gadget and have it delivered at our doorstep contributes to greenhouse emissions and 80% of land and material use.
4. Most of the carbon dioxide that people put into the atmosphere comes from burning fossil fuels such as oil, coal, and natural gas. Cars, trucks, trains and planes all burn fossil fuels.
 The top ten emitters accounting for over two third of annual global greenhouse gas emissions. China is the biggest emitter at 29.4%, followed by the United States at 14.3%, the European Union at 9.8% and India at 6.8%. Russia follows close behind, at 4.9% and Japan at 3.5%. Thus, to fully tackle the climate crisis, we will need deep reductions in all countries and across all sectors.

Contd...3

On the basis of your understanding of the passage, answer the following questions: (1x10=10)

- (a) In the line, 'Global warming has taken on alarming proportions...' the word 'alarming' does not mean.
- disturbing
 - disquieting
 - disbursement
 - dismaying
- (b) Our craving for the latest gadget contributes to _____.
- lessening of greenhouse emissions
 - 80% energy production
 - 80% of land and material use
 - None of the above
- (c) One of the elements for the rise in global warming in this century is _____.
- burning of fossil fuels
 - rising humidity
 - vehicles powered by solar energy
 - livestock farming
- (d) Choose the correct option that lists the correct answers for the following :
1. Maya lives on a hillside farm and grows her food without fertilizers, but uses firewood for cooking and heating.
 2. Rama is a city dweller who cycles to work but lives in a high rise building.
1. is a conservative villager. 2. is a responsible city dweller.
 1. is a carefree villager. 2. is a sports cyclist .
 1. is a conservationist villager. 2. is a conservative city with dweller.
 1. is a energy protector. 2. is an energy consumer.
- (e) Based on your understanding of the passage, choose the options that list the characteristics of weather changes .
- New areas having floods and droughts.
 - Weather conditions becoming pleasant elsewhere .
 - Thunder storms occur rarely.
 - Cyclones are increasingly frequent .
 - Winters are hotter and shorter.
 - Causes of global warming are unknown.
- 1 and 4 (ii) 2 and 5 (iii) 3 and 6 (iv) 4 and 5
- (f) The survey of the agriculture sector clearly showed that _____.
- keeping animals does not affect the production of methane
 - antibiotics is as useful to animals as it is to humans
 - large land holdings have no effect on agriculture production
 - use of antibiotics in animal farming is harmful for humans
- (g) According to the survey given in the passage, the percentage of pollution from waste water was _____.
- 19.4% (ii) 13.5% (iii) 17.4% (iv) 2.8%
- (h) The opposite of the word 'negate' is
- Nullify
 - Make ineffective
 - Support
 - Neutralize
- (i) Choose the option that is **not true**.
- Millions of acres of forest are cleared every year, for wood-based products.
 - The top 10 emitters account for over 2/3 of annual global greenhouse gas emissions.
 - Increased global warming has led to extreme weather conditions in the Northern Hemisphere .
 - The increase of vehicles on the road leads to greenhouse emissions.
- (j) The main sources of greenhouse gases are :
- Waste Water
 - Transportation
 - Forestry
 - Afforestation
- 1, 2 and 3 (ii) 1, 2 and 4 (iii) 2, 3 and 4 (iv) 1, 3 and 4

LITERATURE

(10 Marks)

3. Read the extracts given below and answer the questions that follow:

(1x5=5)

He stalks in his vivid stripes
The few steps of his cage,
On pads of velvet quiet,
In his quiet rage.

He should be lurking in shadow,
Sliding through long grass
Near the water hole
Where plump deer pass.

- (i) What is the rhyme scheme of the given stanzas?
(a) abcb; abcb (b) abcb; abcd (c) abcd; abcd (d) abcd; abcb
- (ii) Identify the poetic device used in the last line of the second stanza.
(a) Oxymoron (b) alliteration (c) simile (d) metaphor
- (iii) The fact that the tiger is 'stalking the few steps of his cage' tells us that he is
(a) restless (b) reckless (c) resilient (d) relaxed
- (iv) The tiger should be lurking in the shadow
(a) for his prey (b) for taking rest (c) for leisure (d) for scaring others
- (v) 'Shadow' here, refers to the shadow of
(a) the tiger (b) long grass (c) water hole (d) deer

4. Answer the following questions by choosing the most appropriate option from the ones given:

(1x5=5)

- (i) How does Nelson Mandela define the meaning of courage?
(a) Triumph over fear (b) Triumph over love
(c) Triumph over selfishness (d) Triumph over poverty
- (ii) Choose the option that lists the possible feelings of the poet prior to the experience shared in the poem 'Dust of Snow'.
(1) cheerful (2) disappointed (3) curious (4) demotivated
(5) thankful (6) gloomy (7) impulsive
(a) 1, 3 & 7 (b) 2, 4 & 6 (c) 5 & 7 (d) 1 & 3
- (iii) Anil made money 'by fits and starts' means that he
(a) deemed it fit to start investing money. (b) started earning money in the recent past.
(c) received money intermittently. (d) put his money to use frequently.
- (iv) What would have been the Postmaster's reaction after receiving Lencho's second letter?
(i) sorrowful (ii) gratitude (iii) disappointment (iv) elation (v) shock
(a) ii and v (b) i and ii (c) ii and iv (d) iii and v
- (v) The narrator describes Tricki as a "pathetic little animal". The use of the word 'pathetic' indicates that the narrator
(a) was very fond of Tricki. (b) thought Tricki was contemptible.
(c) pitied Tricki's condition. (d) believed Tricki's health was deteriorating.

GRAMMAR

(10 Marks)

5. Fill in the blanks with the correct option from the ones given below.

(1x3=3)

The history of man is replete (a) _____ crime and folly. Wars between nations, religious prosecutions, ethnic cleansing and other forms of genocide (b) _____ a heavy toll on human lives. The Spanish conquest of South America was (c) _____ by the extinction of millions of 'natives' through killings and disease.

- (a) (i) with (ii) of (iii) as (iv) at
- (b) (i) have taken (ii) has taken (iii) was taken (iv) taken
- (c) (i) accomplished (ii) accompanied (iii) associated (iv) allowed

Contd...5

6. Read the conversation given below and complete the passage that follows by choosing the most appropriate option from those given and writing it neatly in your answer sheet with the correct option number. (1x3=3)

Jatin : Will you watch a movie with me tonight?

Vikram : I would have but I need to finish my English homework.

Jatin : Then I shall ask Ravi.

Jatin asked Vikram (a) _____. Vikram replied that he would have but (b) _____ his English homework. Jatin then said (c) _____ Ravi.

- (a) (i) that if he would watch a movie with him that night.
(ii) if he will watch a movie with him that night.
(iii) if he would watch a movie with him that night.
(iv) would he watch a movie with him that night.

- (b) (i) I needed to finish (ii) he needed to finish
(iii) that he needed to finish (iv) he had to finish

- (c) (i) he will ask (ii) he would ask (iii) he should ask (iv) he shall ask

7. Fill in the blanks by choosing the correct option from the ones given below. (1x4=4)

(i) I _____ finish my essay on time. I plan to work on it all weekend.
(a) may (b) might (c) will (d) could

(ii) She spoke _____ English. It was nearly impossible to understand her.
(a) few (b) less (c) little (d) a little

(iii) Tim was very upset yesterday because he _____ that he _____ his wallet
(a) realized/will lose (b) had realized/lost (c) realized/had lost (d) has realized/lost

(iv) Although every student in my class _____ the schedule, one of my students always _____ late to the class.

- (a) know/come (b) knows/coming (c) knows/comes (d) know/comes

PART-B (40 Marks)

WRITING

(5 Marks)

8. Attempt ANY ONE of the following questions in 100-120 words. (5 marks)

(A) You are Nikhil/Nisha staying at 53, Jubilee Hills, Hyderabad. Last week, you bought a new laptop from Compu World, Hitech City, Hyderabad with a warranty of two years. Your laptop worked well for a week. However this week, the laptop didn't even switch on. Write a letter to the dealer complaining about the problem and requesting him to get the defect rectified.

OR

(B) You are Nikhil/Neelam, a customer of Airtel Broadband. Write a letter to the Customer Care Department, Airtel regarding the poor service of Internet connection. You are a resident of A-30, Defence Colony, New Delhi.

9. Attempt ANY ONE of the following in 100-120 words. (5 Marks)

(A) Vishal came across the following newspaper clipping about dengue and malaria epidemic. Write a letter to the Editor of a local newspaper emphasizing the need to create awareness of the spread, prevention and treatment of such diseases. Use the hints given below.

Bhilai : Twenty people died and several have been hospitalized in the Durg district due to the spread of dengue and malaria. Doctors are of the opinion that lack of hygiene is the main reason for the outbreak of such an epidemic.

OR

You are concerned about the increased incidents of road accidents involving school children. The main reason is the reckless driving habits of children. You decide to express your views in the form of a letter to the Editor of 'The Hindu' discussing this problem. Also suggest measures to combat it. Use the hints given below.

Owning vehicles at a young age—fashion statement—reckless driving to compete with friends—don't adhere to the traffic rules—don't wear helmets—must enforce use of public transport—parents to monitor—schools to make strict rules.

LITERATURE

(30 Marks)

10. Answer ANY TWO questions in 20-30 words each, from (A) and (B) respectively. (2X4=8)

(A) (any two) (2x2=4)

- (i) How many fuel tanks were there in the plane? How much fuel was left?
- (ii) When did a monstrous terror seize the Seagull? For how long did it last?
- (iii) What was in the note that Miss Mason got from the Principal's office? Who had written that note?

(B) (any two) (2x2=4)

- (i) What 'extra' did Mrs Pumphrey start to give Tricki and why?
- (ii) What lies had Hari told Anil so that he takes him in as a helper?
- (iii) Briefly describe Herriot's days of content.

11. Answer ANY TWO questions in 40-50 words each, from (A) and (B) respectively. (3x4=12)

(A) (any two) (3x2=6)

- (i) What was Mr. Keesing's reaction after reading Anne's poem on the third essay that he had given to her to write?
- (ii) Why did the poet not offer the boy money to buy another ball?
- (iii) What does 'ice' stand for? How is it sufficient to bring destruction?

(B) (any two) (3x2=6)

- (i) Why was Hari nervous when he returned to Anil's house?
- (ii) How does Dr. Herriot treat the dog?
- (iii) Did Hari like working for Anil? Give two reasons in support of your answer.

12. Answer ANY ONE of the following in 100-120 words. (5)

(A) 'Humanity still exists'- This is what we get to know after reading 'A letter to God' in which firm faith of a poor farmer in God and helpfulness of the post office employees are aptly depicted. Discuss this in detail.

OR

The Hundred Dresses-I and II exposes the stereotypical mindset of the people and the non-inclusive nature of the society of those times. Substantiate with relevant examples from the text.

13. Answer ANY ONE of the following in 100-120 words. (5)

(A) Excess of everything is bad. Comment in the wake of Mrs Pumphrey's love for Tricki.

OR

(B) Anil's friendship brought an overwhelming change in a young thief's life. Elaborate.





General Instruction :

- Question paper comprises 3 sections – A, B, and C. There 34 questions in the question paper. All questions are compulsory. Marks are indicated against each question.
 - Section A** is History and Civics of 40 marks.
 - Section B** is Geography of 20 marks.
 - Section C** is Economics of 20 marks.
- Objective type questions should be answered as directed.
- Answer to 3 marks question should not exceed 80 words each.
- Answer to 5 marks question should not exceed 120 words each.
- Source based questions should be answered as directed.
- Map work should be done as directed in question.

SECTION : A (HISTORY & CIVICS) (40 MARKS)

Q.1. Match the following items given in Column A with those in Column B. Choose the correctly matched answer from the options given below. **(1)**

- | | | | |
|--------------------------------------------------------|---|-----|------|
| (a) The French Revolution | - | (1) | 1780 |
| (b) Introduction of Napoleonic Code | - | (2) | 1805 |
| (c) Final defeat of Napoleon in the Battle of Waterloo | - | (3) | 1813 |
| (d) Silesian Weaver’s uprising | - | (4) | 1845 |

Q.2. Identify the correct statement with regard to the ‘Zollverein’ from the following options. **(1)**

- (a) It was a measuring unit of cloth in Germany.
- (b) It was a class of Traders in Germany.
- (c) It was a Custom Union formed in 1834.
- (d) It was the Congress hosted by the Metternich in 1815.

Q.3. Study the picture and answer the question that follows: **(1)**

Napoleon is represented as a postman and each letter dropping out of his bag, at the back bears the names of the territories.



What does the above picture symbolize ?

- (a) Napoleon lost territories after the Battle of Leipzig.
- (b) Napoleon gained territories after the Battle of Leipzig.
- (c) Napoleon spreads nationalism in different territories one by one.
- (d) Napoleon as a postman spreading message of the French Revolution.

Q.4. Who was proclaimed the German Emperor in a ceremony held at Versailles in January 1871? **(1)**

Q.5. Correct the following statement and rewrite. **(1)**
There are 22 scheduled languages in the Indian Constitution excluding Hindi.

OR

India is a coming together federation and Australia is a holding together federation.

Q.6. Choose the most appropriate option:- (1)

In which part of the country are Sri Lankan Tamils Concentrated?

- (1) North (2) East (3) South (4) Both (1) and (2)

Q.7. Sinhala was recognized as the only official language by the Act of _____ (1)

OR

The political head of the Zila Parishad is _____

Q.8. What was Tamil Eelam? (1)

OR

What is Coalition Government?

Q.9. What were the economic ideas supported by the Liberals? (Any three) (3)

OR

What changes took place in France as a consequence of the Revolution of the Liberals in 1848?

Q.10. Sources are given below. Read and answer the question that follow:- (3)

Source: A The July Revolution of 1830

An upheaval took place in France in July 1830. The Bourbon King was removed by the liberal revolutionaries and constitutional monarchy was installed with Louis Philippe as its head. When France sneezes, Metternich once remarked, 'the rest of Europe catches cold.'

Source: B Liberal Nationalism

The term 'Liberalism' derives from the Latin root liber, meaning free. For the new middle classes liberalism stood for freedom for the individual and equality before the law. Yet, equality before the law did not necessarily stand for universal suffrage. Men without property and all women were excluded from political right.

Source: C Frankfurt Parliament

On 18 May, 1848, 831 elected representatives marched in a festive procession to take their place in the Frankfurt Parliament convened in the Church of St. Paul. They drafted a constitution for a nation to be headed by a monarchy subject to a Parliament. When the deputies offered the crown on these terms to Friedrich Wilhelm IV, King of Prussia, he rejected it.

Source: A – The July Revolution of 1830

'When France sneezes, the Rest of Europe catches cold'. What do you interpret from this statement?

Source: B – Liberal Nationalism

In what ways were liberals not democrats?

Source: C – Frankfurt Parliament

The Frankfurt Parliament could not achieve its aim, Why?

Q.11. What were the three demands of the Sri Lankan Tamils from its government? (3)

Q.12. What is Gram Sabha? Describe any two functions of the Gram Sabha. (1+2)

Q.13. "Culture played an important role in creating the idea of the nation, in Europe". Support the statement with examples. (5)

Q.14. Explain any five reforms introduced by Napoleon in the region under the control. (5)

OR

Describe the explosive condition that prevailed in Balkans after 1871 in Europe.

Q.15. What are some basic elements of the Belgium model of power sharing? (5)

Q.16. Describe any five features of federal government. (5)

OR

What amendments were made in 1992 in the Indian Constitution to make the third-tier of democracy more powerful and effective?

SECTION : B (GEOGRAPHY) (20 MARKS)

Q.17. Choose the characteristics of 'arid soil'. (1)

(a) They are generally Sandy in texture and saline in nature.

(b) It looks yellow when it occurs in hydrated form.

(c) This soil is ideal for growing cotton.

(d) These soils are made of extremely fine clayey material.

- Q.18** Which one of the following is a kharif crop? (1)
(a) Wheat (b) Barley (c) Peas (d) Paddy
- Q.19** Red laterite soils in Tamil Nadu, Andhra Pradesh and Kerala are more suitable for crops like _____. (1)

OR

Tea bushes require warm and moist __ free climate throughout the year.

- Q.20** In which of the following states black soil is predominantly found? (1)
(a) Jammu and Kashmir (b) Maharashtra (c) Rajasthan (d) Jharkhand
- Q.21** Choose the correctly matched pair. (1)
Name of the slash and burn agriculture country
(A) Milpa (1) Mexico
(B) Conuco (2) Brazil
(C) Roca (3) Venezuela
(D) Ladang (4) Vietnam

- Q.22** Mention any three characteristics of 'forest and mountain soil'. (3)
- Q.23** Read the text given below and answer the following questions. (4)

It is the staple food crop of a majority of the people in India. Our country is the second largest producer of rice in the world after China. It is a kharif crop which requires high temperature (above 25 degree centigrade and high humidity with annual rainfall above 100 cm. In the areas of less rainfall, it grows with the help of irrigation. Rice is grown in the plains of north and North Eastern India, coastal areas and the deltaic regions. Development of dense network of canal irrigation and tube wells have made it possible to grow rice in areas of less rainfall such as Punjab, Haryana, Western Uttar Pradesh and parts of Rajasthan.

- Q.1** Which is the staple food crop of a majority of people in India?
(a) Rice (b) Wheat (c) Bajra (d) Maize
- Q.2** Mention the temperature required for the growth rice.
(a) 28 degree centigrade (b) 25 degree centigrade
(c) 50 degree centigrade (d) 30 degree centigrade
- Q.3** What is the annual rainfall required for the growth of rice?
(a) 100cm (b) 200 cm (c) 300 cm (d) 400cm
- Q.4** What kind of crop is rice?
(a) Rabi (b) kharif (c) Zaid (d) None of these
- Q.24** Explain salient features of plantation farming. (5)

OR

Enlist the various institutional and technological reform programmes introduced by the government in the interest of farmers.

- Q.25** Locate and label any three items using suitable symbols on the given political outline map of India. (3)
(a) Sardar Sarovar Dam (b) Area of arid soil (c) Largest producer state of sugarcane
(d) Hirakud (e) Largest producer state of tea

SECTION : C (ECONOMICS) (20 Marks)

Choose the correct option :-

- Q.26** Which of the following activities does not belong to the Primary sector? (1)
(a) Fishing (b) Banking (c) Mining (d) Forestry
- Q.27** Which of the following countries has higher Human Development Index rank than India? (1)
(a) Sri Lanka (b) Nepal (c) Bangladesh (d) Pakistan
- Q.28.** The total income of the country divided by its total population is : (1)
(a) Gross Income (b) Net Income (c) Per Capita Income (d) Total Income

In the questions given below, there are two statements marked as Assertion (A) and Reason (R).

Read the statements and choose the correct option:

- Q.29** Assertion (A) : Sustainable development is essential for economic growth of the countries.
Reasoning (R) : Sustainable development ensures that environmental friendly measures are adopted for carrying out production processes.

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

(1)

Q.30 Assertion (A) :The development of agriculture and industry leads to the development service sector.

Reasoning (R) : As the Primary and Secondary sectors develop , the demand for transport , storage structure , banks ,insurance etc. increases.

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

Q.31 Define : a) Infant Mortality Rate b) Literacy Rate c) Net Attendance Ratio

(3)

Q32 (a) What is disguised unemployment?

(1+2)

(b) "The problem of under employment is not confined to agriculture." Support the statement with examples.

OR

Do you think the classification of economic activities into primary, secondary and tertiary is useful? Explain how.

(3)

Q.33 Read the source given below and answer the following questions:

(4x1)

The value of final goods and services produced in each sector during a particular year provides the total production of the sector for that year. And the sum of production in the three sectors gives what is called the Gross Domestic Product (GDP) of a country. It is the value of all final goods and services produced within a country during a particular year. GDP shows how big the economy is. In India, the mammoth task of measuring GDP is undertaken by a central government ministry. The ministry, with the help of various government departments of all the Indian states and union territories, collects information relating to total volume of goods and services and their prices and then estimates the GDP.

Answer the following MCQs by choosing the most appropriate answer:

(i) How is GDP calculated?

- (a) The value of intermediate goods and services produced in each sector during a particular year and the sum of production in the three sectors.
- (b) The value of intermediate goods and services produced in each sector during a particular year provides the approximate production of the sector for that year.
- (c) The value of final goods and services produced in each sector during a particular year provides the total production of sector for that year, and the sum of production in the three sectors.
- (d) The value of final goods and services produced in each sector during last three years provides the total production of the sector for that year.

(ii) What do final goods and services mean?

- (a) Production of goods and services
- (b) Those goods and services that finally reach the consumers.
- (c) Those goods and services that are out of reach of consumers
- (d) None of the above

(iii) In how many sectors does the sum of production give GDP of a country?

- (a) Two (b) Five (c) Three (d) Four

(iv) Who is responsible for collecting data for the GDP in India?

- (a) Central Government ministry (b) State Government ministry
- (c) Mayor (d) Union Territory

Q.34 Why is tertiary sector also called service sector? Explain the importance of tertiary sector?

(1+4)

OR

Write a paragraph on your notion of what should India do, or achieve, to become a developed country.

(5)



DELHI PUBLIC SCHOOL, BHILAI

DATE : 14.09.2021

MID TERM EXAMINATION (2021-22)

Time : 3 Hours

CLASS : X

SUB. – MATHEMATICS

Max. Marks : 80

General Instructions :

01. This question paper contains two parts A & B.
02. Both part A and part B have internal choices.

PART – A

01. It consists of two sections I and II.
02. Section I has 16 questions of 1 mark each. Internal choice is provided in 5 questions.
03. Section II has 4 questions on case study. Each case study has 5 case based sub-parts. An examinee has to attempt any 4 out of 5 sub-parts.

PART – B

01. Question numbers 21 to 26 are very short answer type questions of 2 marks each.
02. Question numbers 27 to 33 are short answer type questions of 3 marks each.
03. Question numbers 34 to 36 are long answer type questions of 5 marks each.
04. Internal choice is provided in 2 questions of 2 marks, 2 questions of 3 marks and 1 question of 5 marks.

**PART – A
SECTION – I**

Section I has 16 questions of 1 mark each. Internal choice is provided in 5 questions.

01. If two positive integers p and q can be expressed as $p=ab^2$ and $q=a^3b$, a, b being prime numbers, then find the L.C.M. (p, q).
02. If $x = a$ and $y = b$ is the solution of the equations $x - y = 2$ and $x + y = 4$, then find the values of a and b .
03. How many zeros does a polynomial of degree n have ?

OR

The graph of a quadratic polynomial intersects the x -axis at most at how many points ?

04. What kind of a solution will the pair of equations $y = 3$ and $y = 8$ have ?
05. What type of decimal expansion will $\frac{51}{1500}$ have ?

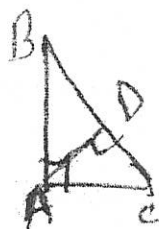
OR

If p/q is a rational number ($q \neq 0$) and H.C.F. (p, q) = 1, then what will be the condition on q , so that the decimal form of p/q is terminating ?

06. If L.C.M. of a and 18 is 36 and H.C.F. of a and 18 is 2, then what is the value of a ?
07. If the sum and product of zeros of a quadratic polynomial are 0 and $\sqrt{3}$ respectively, then find the quadratic polynomial.
08. 5 chairs and 4 tables together cost ₹ 2800 while 4 chairs and 3 tables together cost ₹ 2170. Represent the given situation algebraically.
09. The larger of two complementary angles exceeds the smaller by 16 degrees. Find the angles.
10. In two triangles ABC and DEF , $\angle A = \angle E$ and $\angle B = \angle F$. Then what is the ratio $\frac{AB}{AC}$ equal to?

OR

In the given figure, $\angle BAC = 90^\circ$ and $AD \perp BC$. Prove that $BD \times CD = AD^2$.

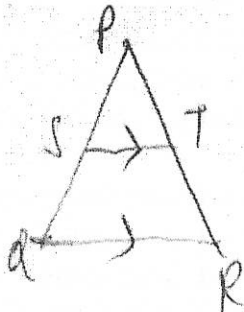


11. What is the point of intersection of the lines $x - 3 = 0$ and $y - 5 = 0$?
12. Two equilateral triangles have the sides of lengths 34 cm and 85 cm respectively. What is the greatest length of tape that can measure the sides of both the triangles exactly ?

OR

On a Delhi road, three consecutive traffic lights change after 36, 42 and 72 seconds. If the lights are first switched on at 9 am, at what time will they change simultaneously ?

13. In a ΔPQR , S and T are points on the sides PQ and PR respectively such that $ST \parallel QR$. If $PT=2$ cm and $TR=4$ cm, then find the ratio of the areas of ΔPST and ΔPQR .



OR

If the ratio of areas of two similar triangles is 2:3, then find the ratio of their corresponding sides.

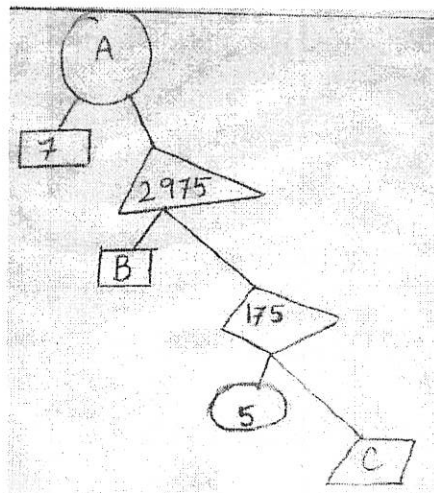
14. If the sum of the zeros of the quadratic polynomial $kx^2 + 4x + 3k$ is equal to their product, then what is the value of k ?
15. Write the equation of a line which is parallel to $\sqrt{3}x - \sqrt{5}y = 8$.
16. If one root of the polynomial $f(x) = 3x^2 + 11x + p$ is reciprocal of the other, then find the value of p .

SECTION - II

Case study based questions are compulsory. Attempt any four sub-parts of each question. Each sub-part carries 1 mark.

17. CASE STUDY - 1

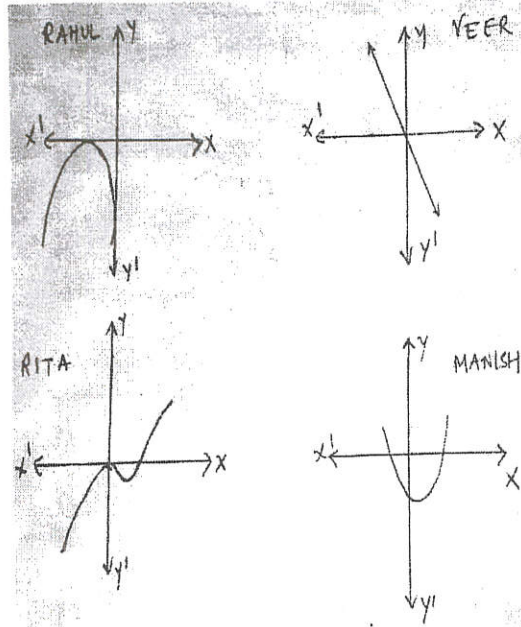
A Mathematics exhibition is being conducted in a school and one of the Mathematic teachers is making a model of a factor tree. He asks for help in completing a quiz for the viewer. Observe the factor tree and answer the following questions.



- Q.1 The value of A is :
 (a) 20825 (b) 15005 (c) 56920 (d) 17429
- Q.2 The value of B is :
 (a) 23 (b) 17 (c) 11 (d) 19

- Q.3 The value of C is
(a) 22 (b) 23 (c) 35 (d) 19
- Q.4 The prime factorisation of 20825 is
(a) $5^2 \times 17 \times 7^2$ (b) $5^2 \times 7^2 \times 13$ (c) $5^2 \times 7^2 \times 11^2$ (d) $5^2 \times 7 \times 17$
- Q.5 According to Fundamental theorem of Arithmetic, 20825 is a/an :
(a) Even number (b) prime number
(c) neither prime nor composite (d) composite number

Q.18 Case Study – 2 In a classroom, four students Rahul, Veer, Rita and Manish were asked to draw the graph of $p(x) = ax^2 + bx + c$. Following graphs are drawn by the students :

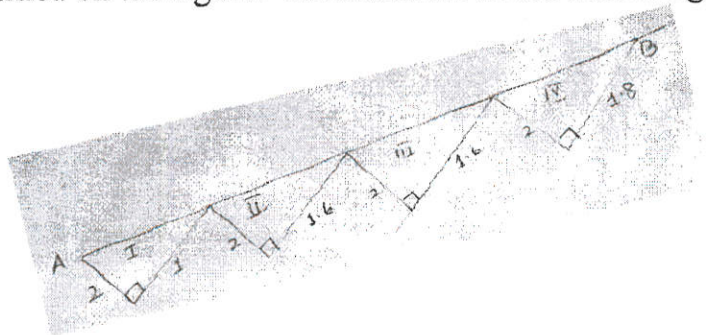


Based on the above graphs, answer the following questions :

- Q.1 How many students have drawn the graph correctly ?
(a) 1 (b) 2 (c) 3 (d) 4
- Q.2 Which type of polynomial is represented by Veer's graph ?
(a) Linear (b) Cubic (c) Quadratic (d) None of these
- Q.3 How many zeros are there for Rita's graph ?
(a) 1 (b) 2 (c) 3 (d) 4
- Q.4 What type of graphs do Rahul and Manish get ?
(a) Linear (b) Parabola (c) Spiral (d) None of these
- Q.5 Number of zeros of a polynomial is equal to number of points where the graph of polynomial
(a) Intersects x-axis (b) Intersects y-axis
(c) Intersects x-axis or y-axis (d) None of these

Q.19 Case Study – 3

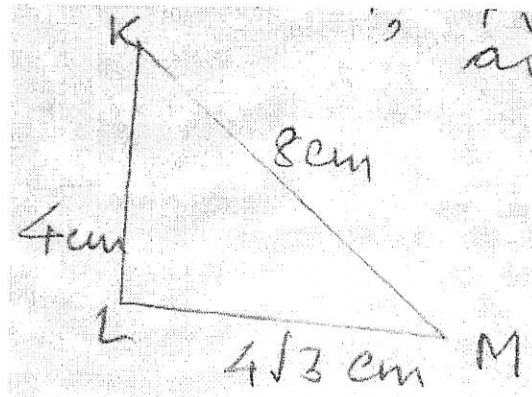
There is a staircase as shown in figure, connecting points A and B. Measurement of steps are marked on the figure. Give answers of the following questions :



- Q.1 The common angle in each staircase is
(a) 30° (b) 60° (c) 90° (d) None of these

- Q.2 According to which similarity criteria are staircase II & III similar ?
 (a) RHS (b) SAS (c) AA (d) None of these
- Q.3 Which concept is used to find the distance between A and B ?
 (a) Pythagoras theorem (b) Converse of Pythagoras theorem
 (c) Thales theorem (d) Converse of Thales theorem
- Q.4 Distance between A & B is :
 (a) $\sqrt{5} + \sqrt{6.56} + \sqrt{6.56} + \sqrt{7.24}$ (b) $\sqrt{5.15} + \sqrt{6.21} + \sqrt{6.21} + \sqrt{7}$
 (a) $\sqrt{5} + \sqrt{6} + \sqrt{6} + \sqrt{7}$ (b) None of these
- Q.5 The sum of the areas of the four staircases is :
 (a) 6 square units (b) 12 square units (c) 10 square units (d) None of these
- Q.20 Case Study -4

Daisy is feeling hungry but her mother is not at home. So she decides to try making a sandwich for herself. She cuts the piece of bread diagonally and finds that it forms a triangle with sides 4 cm, $4\sqrt{3}$ and 8 cm as shown in figure



Based on the above information, answer the following questions :

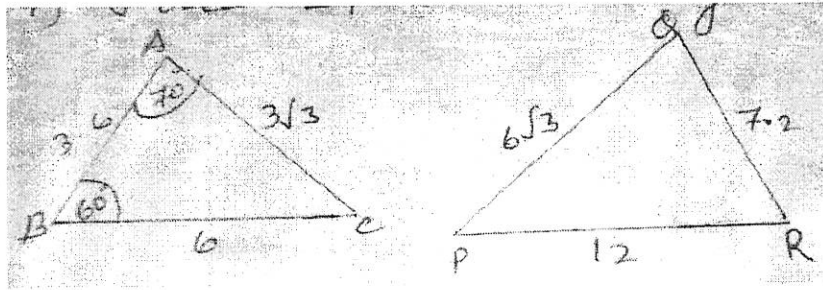
- Q.1 What kind of a triangle is formed ?
 (a) Acute angled Δ (b) Obtuse angled Δ (c) Right angled Δ (d) None
- Q.2 The value of $\angle K$ is :
 (a) 45° (b) 30° (c) 60° (d) None of these
- Q.3 The value of $\cos^2 K + \sin^2 K$ is
 (a) 0 (b) 2 (c) 1 (d) None of these
- Q.4 The value of $\frac{\tan^2 M - 1}{\tan^2 M + 1}$ is
 (a) 0 (b) $-\frac{1}{2}$ (c) $\frac{1}{2}$ (d) None of these
- Q.5 $\cos^2 M - 1$ is equal to
 (a) $\frac{1}{2}$ (b) $\frac{3}{4}$ (c) $\frac{1}{4}$ (d) $-\frac{1}{4}$

PART - B

(All questions are compulsory. In case of internal choices, attempt any one).

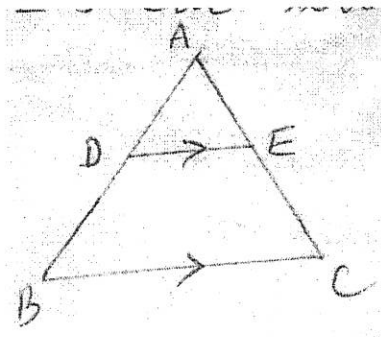
- Q.21 Express $x = 0.25\bar{3}$ as a fraction in the simplest form.
- Q.22 Find the zeros of the polynomial $f(x) = x^2 + x - \frac{3}{4}$
- OR**
- If the zeros of the polynomial $p(x) = x^2 + (a + 1)x + b$ are 4 and -3, then what is the value of (a-b) ?
- Q.23 Show that the system of equations $4x + 6y = 7$ and $12x + 18y = 21$ has infinitely many solutions.

Q.24 Find $\angle P$ in the given figure :



OR

In the given figure $DE \parallel BC$, $AD = 2\text{ cm}$, $BD = 2.5\text{ cm}$ and $DE = 4\text{ cm}$. Find BC .



Q.25 If $3 \tan \theta = 4$, then evaluate : $\frac{3 \sin \theta + 2 \cos \theta}{3 \sin \theta - 2 \cos \theta}$

Q.26 If $\sin(A + B) = 1$ and $\cos(A - B) = \frac{\sqrt{3}}{2}$, find A and B.

Q.27 If α and β are the zeros of $x^2 - 7x + 5$, then find the value of $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$.

Q.28 Prove that $3 + 2\sqrt{5}$ is irrational, given $\sqrt{5}$ is irrational.

Q.29 Find the value of k for which the given system of equations has infinitely many solutions
 $kx + 3y = k - 3$, $12x + ky = k$

OR

Solve for x and y

$$6x + 3y = 7xy, 3x + 9y = 11xy$$

Q.30 Evaluate $\frac{\cos 45^\circ}{\sec 30^\circ + \operatorname{cosec} 30^\circ}$

OR

If $\sqrt{3} \sin \theta - \cos \theta = 0$ and $0^\circ < \theta < 90^\circ$, find the value of θ .

Q.31 Prove that the sum of the squares of the sides of rhombus is equal to the sum of the squares of its diagonals.

Q.32 Find the zeros of the polynomial $4\sqrt{3}x^2 + 4\sqrt{3}x - 3\sqrt{3}$. Also verify the relationship between the zeros and its coefficients.

Q.33 A sweet seller has 420 kaju barfis and 150 badam barfis. He wants to stack them in such a way that each stack has the same number and they take up the least area of the tray. How many of these can be placed in each stack? How many stacks are formed?

Q.34 Prove that if a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, then the other two sides are divided in the same ratio.

Q.35 Prove that :

$$\frac{\cos \theta}{(1 - \tan \theta)} + \frac{\sin \theta}{(1 - \cot \theta)} = (\cos \theta + \sin \theta)$$

Q.36 Show graphically that the system of linear equations $2x - 3y = 5$, $6y - 4x = 3$ is inconsistent.

OR

The sum of the two digits of a two digit number is 9. The number obtained by interchanging the two digits exceeds the given number by 45. Find the number.



DELHI PUBLIC SCHOOL, BHILAI

DATE : 23.09.2021

MID TERM EXAMINATION (2021-22)

Time : 3 Hours

CLASS : X

SUBJECT – SCIENCE

Max. Marks : 80

General Instructions:

- (i) The question paper comprises THREE sections A, B and C. There are 36-questions in the question paper. All questions are compulsory.
- (ii) Section–A PHYSICS (27) question no. 1 to 13,
Section–B CHEMISTRY (26) question no.14 to 24,
Section–C BIOLOGY (27) question no. 25 to 36.
- (iii) Marks on each question have been mentioned against it. All 1 mark questions contain multiple choice questions (MCQs), very short answer questions and assertion - reason type questions. Answers to these should be given in one word or one sentence. All questions carrying 2 and 3 marks are short answer type questions. All questions carrying 5 marks are long answer type questions.
- (vi) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
- (vii) Wherever necessary, neat and properly labelled diagrams should be drawn.
- (viii) For the questions based on assertion and reasoning question two statements are given one labelled **Assertion (A)** and the other labelled **Reason (R)**. Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below :
 - (a) Both A and R are true, and R is correct explanation of the assertion.
 - (b) Both A and R are true, but R is not the correct explanation of the assertion.
 - (c) A is true, but R is false.
 - (d) A is false, but R is true.

SECTION : A (PHYSICS : 27 MARKS)

- Q.1 The magnification produced by a plane mirror is +1. What does this mean? (1)
Q.2 Find the focal length of a spherical mirror having radius of curvature 30 cm. (1)

OR

Find the radius of curvature of a spherical mirror having focal length of 60cm.

- Q.3 Define optical centre of spherical lens. (1)
Q.4 Why do planets do not twinkle? (1)

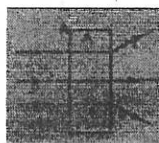
OR

Why the sky appears dark to astronauts flying in space?

- Q.5 Which component of white light is least scattered by fog or smoke, and why? (1)
Q.6 A convex lens is of focal length 20 cm. What is its power? (1)
Q.7 **Assertion :** A pencil dipped in water tank appears to be raised due to refraction of light. (1)
Reason : Bottom of a water tank appears to be raised due to refraction of light.
Q.8 **Read the following and answer any four questions from 8 (i) to 8 (v)** (4)

Lenses are objects made of transparent materials such as glass or clear plastic. They have curved surfaces. There are two main kind of lenses. Diverging lenses are thicker at their edges than in their centres and they make light rays passing through them spread out. Converging lenses are thicker in the middle than at their edges and were the earliest kind of lens made. The earliest examples of these date back two thousand years. They have been used in spectacles to help people with poor vision see better since at least the tenth century.

- (i) A student draws a ray diagram for image formation by convex lens and forms a real image beyond its 2F. The position of the object in front of the lens in the diagram must be
(a) at F (b) at 2F (c) between F and 2F (d) beyond 2F
- (ii) A beam of light is incident through the holes one side and emerges out of the holes on the other side of box A as shown in figure. Which of the following optical device could be inside the box?



- (a) prism (b) concave lens (c) glass slab (d) convex lens

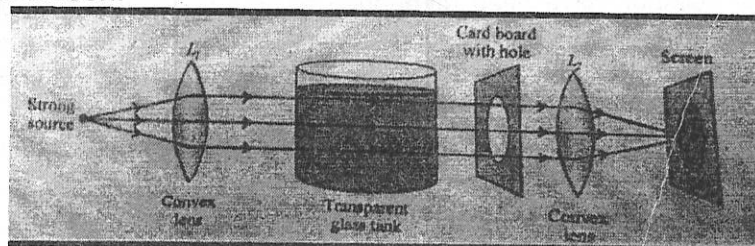
- (iii) When we use convex lens as magnifying lens placed close to an object, the nature and size of image is

- (a) virtual, erect, diminished (b) real, erect, enlarged
(c) virtual, erect, enlarged (d) real, inverted, diminished

- (iv) A student wants to draw diagram to show formation of real image by a convex lens. He may choose position of object to be at
 (a) infinity (b) 2F (c) focus (d) any one out of these three
- (v) Parallel beam of light from a distant object, passing through a convex lens, will converge
 (a) beyond 2F (b) at F (c) between F and 2F (d) between F and O

Q.9 Read the following and answer any four questions from 9 (i) to 9 (v) (4)

Consider the setup shown in the figure. Initially about 2 litres of clean water was put in the glass tank. A sharp image of the circular hole was obtained on the screen. Then about 200g of sodium thiosulphate was dissolved in water and 2 ml of concentrated sulphuric acid was added to the solution. Soon fine sulphur particles precipitated in the solution. It was observed that blue light scattered from the sides of the tank except the side facing the screen. Red crimson colour was seen on the screen.



- (i) Scattering may depend upon
 (a) colour of light (b) wavelength of light (c) size of the scatterer (d) all of these
- (ii) Yellowish colour of the sun is due to
 (a) reflection of light (b) scattering of light (c) dispersion of light (d) refraction of light
- (iii) The colour of sky seen from moon is
 (a) black (b) sky blue (c) blue (d) reddish
- (iv) The given set up is used to show
 (a) reflection of light (b) refraction of light (c) dispersion of light (d) scattering of light
- (v) Scattering caused by microscopic solid particles suspended in a liquid or gas is called
 (a) selective scattering (b) special scattering (c) Rayleigh scattering (d) Tyndall effect
- Q.10** An object is placed at a distance of 10 cm from a convex mirror of focal length 15 cm. Find the position and nature of the image. (2)
- Q.11** Draw a ray diagram showing refraction of light through glass prism and label the following:- (2)
 (a) Angle of deviation (b) Angle of emergence (c) Refracted ray
- Q.12(a)** A concave lens has a focal length of 20 cm. At what distance from the lens should the object be placed so that it forms an image at 15 cm from the lens. Also find its magnification. (3)
- (b)** The speed of light in water is 2.25×10^8 m/s and that of glass is 2.0×10^8 m/s. Calculate the refractive index of glass with respect to water.
- Q.13(a)** Define atmospheric refraction. How is this phenomenon responsible for appearance of stars at higher positions as compared to their actual position? Explain using diagram.
- (b)** What is dispersion of light? What happens when white light is passed through a glass prism?
- (c)** How is a rainbow formed? Explain with the help of diagram. (5)

OR

- (a) Draw a ray diagram showing the image formation by a concave mirror when an object is placed at centre of curvature of the mirror.
- (b) Which type of lens has a positive power and a negative power?
- (c) A ray of light strikes a glass slab at an angle of 90° . What is the angle of incidence and angle of refraction?
- (d) A concave mirror produces three times enlarged real image of an object placed 12 cm in front of it. Calculate the radius of curvature of the mirror.

SECTION : B (CHEMISTRY : 26 MARKS)

- Q.14** Which of the following is a weak base (1)
 (a) Sodium Hydroxide (b) Potassium Hydroxide
 (c) Ammonium Hydroxide (d) Calcium Hydroxide
- Q.15** Name the acid present in tomatoes (1)
 (A) Oxalic acid (b) Malic acid (c) Tartaric acid (d) Formic acid
- Q.16** Metal oxide react with acid to form (1)
 (a) Salt and hydrogen (b) Salt and water
 (c) Salt and carbon dioxide (d) None of the above
- Q.17** Assertion : (A) Calcium Carbonate when heated gives calcium and water. (1)
 Reason : (R) On heating Calcium Carbonate decomposition reaction take place.

Q.18 Read the following and answer any four:

On heating Lead Nitrate in a test tube Nitrogen and Lead Oxide is left behind in the test tube. (4)

- (a) Name the type of chemical reaction that takes place?
 (b) What is the colour of Nitrogen dioxide gas formed?
 (c) The colour of the Lead Iodide formed is
 (1) Red (2) Blue (3) Yellow (4) Brown
 (d) How many products are formed on heating Lead Nitrate
 (1) Two (2) Three (3) Four (4) None of the above
 (e) Write the chemical formula of Lead Nitrate.

Q.19 What is tooth enamel made up of? Write the chemical formula of it. (2)

Q.20 Name two olfactory and two artificial indicators. (2)

Q.21 What happens when Silver Chloride is kept in sunlight? Write balanced chemical equation for the reaction. (3)

Q.22 Write chemical equation and balance the following: (3)

- (a) Nitrogen combines with Hydrogen to form Ammonia.
 (b) Hydrogen Sulphide gas burns in air to give water and sulphur dioxide.

Q.23 Name the acid and the base from which the following salts are formed. (3)

Sodium Sulphate, Ammonium Chloride, Potassium Nitrate

Q.24 Name the substance oxidized, reduced, oxidizing agent and reducing agent in the following equation. (5)



Define oxidising agent.

OR

- (a) Metal compound X reacts with hydrochloric acid to produce effervescence. The gas evolved extinguishes a burning candle. Write balanced equation for the reaction if one of the compounds formed is Calcium Chloride. Name the metal compound X and the gas evolved.
 (b) Why does an aqueous solution of an acid conduct electricity?

SECTION-C (BIOLOGY : 27 MARKS)

Q.25 What will happen to a plant, if its Xylem is removed? (1)

Q.26 Give the term for - (1)

- (a) 'contraction of Heart' & (b) 'Relaxation of Heart'

OR

How many pairs of (a) teeth & (b) Salivary gland do we have?

Q.27 The pathway of respiration common in all living organisms occurs in 'X' & aerobic respiration occurs in 'Y' in a cell. Identify 'X' & 'Y' (1)

Q.28 What may happen, if a young plant is dug up and re-planted in another place? (1)

OR

Name the chambers of Human heart that (a) contain oxygenated blood & also the (b) chambers that contain de-oxygenated blood.

Q.29 Assertion (A): The inner lining of the small intestine does not have numerous finger like projections called villi (1)

Reason (R) : The villi increases the surface area for absorption

Q.30 Read the following and answer any four questions from 30 (i) to 30 (v). (4)

Double circulation is a type of circulating system in which the blood passes through the heart twice before completing a full circuit of the body. Blood is pumped from the heart to the lungs and returns to the heart before being distributed to other organs and tissues of the body.

- (i) The figure shows blood circulation in humans with labels A to D. Select the option which gives correct identification of label and functions of the part.

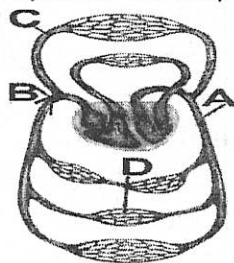


- (a) B- Capillary- Thin without muscle layer and wall two cell layers thick
 (b) C- Vein- Thin walled and blood flows in jerks/spurts
 (c) D- Pulmonary vein- Takes oxygenated blood to heart
 (d) A- Artery - Thick walled and blood flows evenly.

(ii) Incomplete double circulation is seen in
 (a) Mammals (b) Pisces (c) Aves (d) Amphibians.

(iii) Which of the following animals shows double circulatory pathway?
 (a) Snake (b) Frog (c) Eel (d) Whale

(iv) The given figure is of circulatory system. Identify the labelled parts (A-D) from the list (I-VII).



(v) Pulmonary circulation (II) Systemic circulation (III) Superior vena cava (IV) Inferior vena cava
 (V) Aorta (VI) Veins and Venules (VII) Arterioles and capillaries

- (a) A-(V), B-(III), C-(I), D-(VII) (b) A-(VII), B-(IV), C-(I), D-(VI)
 (c) A-(V), B-(III), C-(II), D-(VII) (d) A-(VII), B-(V), C-(I), D-(VI)

(vi) Select the option which properly represents pulmonary circulation in humans.

- (a) Left Auricle $\frac{\text{Deoxygenated Blood}}$ Lungs $\frac{\text{Oxygenated Blood}}$ Right ventricle
 (b) Left auricle $\frac{\text{Oxygenated Blood}}$ Lungs $\frac{\text{Deoxygenated Blood}}$ Right ventricle
 (c) Right ventricle $\frac{\text{Deoxygenated Blood}}$ Lungs $\frac{\text{Oxygenated Blood}}$ Left ventricle
 (d) Right ventricle $\frac{\text{Oxygenated Blood}}$ Lungs $\frac{\text{Deoxygenated Blood}}$ Left ventricle

Q.31 (a) Name the components which you will observe when you focus the stomata of leaf slide under microscope. (2)

(b) Identify the component which helps in opening & closure of stomata & how these cells regulate the process?

OR

(a) Name the largest digestive gland in human body, and also name the digestive juice secreted by it.

(b) How would digestion of food be affected if the duct delivering the above mentioned digestive juice to small intestine is blocked?

Q.32 (a) Mention two common features of the respiratory organs in aquatic and terrestrial animals.

(b) Why do aquatic animals breathe faster than the terrestrial animals? (2)

OR

(a) Name the respiratory organs of earthworm and cockroach.

(b) Differentiate between anaerobic respiration occurring in Yeast cell & Muscle cells on the basis of end products.

Q.33 List in tabular form, three differences between arteries, veins & capillaries-helping in transportation of blood in animals. (3)

OR

Why and how does water enter continuously into the root xylem for transportation of water & minerals in plants?

Q.34 With the help of neat well-labelled diagram show different stages of nutrition in Amoeba. (3)

Q.35 Give reasons why? (3)

(a) Haemoglobin is the pigment which connects respiratory and transportation system in animals.

(b) During vigorous exercise, we breathe faster.

(c) Increased cutting of trees reduces oxygen level of the nature.

Q.36 Draw the sectional view of human heart and label the following parts given below: (5)

(a) chamber where oxygenated blood from Lungs is collected.

(b) Largest blood vessel in our body.

(c) Muscular wall separating right & left chambers.

(d) Blood vessel that carries blood from heart to lungs.

OR

Draw a neat diagram of the 'Human respiratory system' & label the following parts:

(a) The muscular flap which moves up and down to facilitate inhalation & exhalation.

(b) The voice-box or larynx.

(c) The branched tubes of wind-pipe entering lungs on each side.

(d) The balloon like sacs at the end of branched tubes.

~~~~~

Sci  
 Math  
 Bio  
 Eng  
 Hindi  
 Sans  
 AI