K.L.E. Society's

Raja Lakhamagouda Science Institute
(Autonomous)
BELAGAVI.

SUBJECT

B.Sc I - Semester
Nov-2017

QUESTION PAPER BOOKLET

Reg. No. ☐☐☐☐☐☐☐

KLE Society's

Raja Lakhamagouda Science Institute (Autonomous), Belagavi.

First Semester B.Sc. Degree Examination Nov - 2017

A01: BASIC ENGLISH

Duration: 3 Hrs   **Max Marks: 70**

I. Answer the following questions in a word, a phrase or a sentence each:

1x10=10

1. Who is the Maker in the poem 'On His Blindness'?
2. How many coins did Guru Nayak gave to astrologer at last?
3. How were the wet stones glistening?
4. Who gave the letters of introduction to Mr. Framton Nuttel?
5. Who wrote the poem 'To the Indians Who Died in Africa'?
6. How the neighbors of victor Prince called him?
7. When was the Milton lost his eye sight.
8. Who asked apologies for being late to Framton Nuttel?
9. Name the poem written by Sarojini Naidu?
10. Who was pouring milk to Kala Naga every night?

II. **Explain the Reference to context of the following**
(One each from prose and poetry to be answered)   5x2=10

  a) 1. Ah, Tell me more.
     2. You're a stupid old Brahmin.
  b) 1. People everywhere talked of the inches rising.
     2. A man's destination is not his destiny.

III.   10x1=10

  a) How the spontaneous practical joke played upon Mr. Framtan Nutten
                             Or
  b) The devotee of Vishnu Gunga Ram's blind reverence for a king cobra leads in to his death. Explain.

IV.   10x1=10

  a) What are Milton's feelings in his sonnet 'On His Blindness'.
                             Or
  b) Summaries the poem 'To the Indians who Died in Africa'.

V. **A) Fill in the blanks with appropriate articles**   1x5= 5
    1. Please bring _____ kilo-gram of apples.
    2. This is _____ important question.
    3. I shall be back in _____ hour
    4. Have you ever visited _____ Andaman Island?.
    5. The sun rises in _____ East.

B) Fill in the blanks with appropriate prepositions   1x5=5
   1. He lives _____ Mumbai.
   2. Rama cuts an apple _____ knife.
   3. The competition will be _____ by 6 PM.
   4. He is suffering _____ headache.
   5. Kamala jumped _____ the river.

VI.

A) Give the Synonyms of the following words   1x5=5
   1. Innocent
   2. Keen
   3. Gratitude
   4. Solemn
   5. Hypocrite

B) Give the antonyms of the following words: 1x5=5
   1. Yield
   2. Zenith
   3. Rejoice
   4. Blame
   5. Abridge

VII. **Read the passage carefully and answer the questions given below**
                                                                   2x5=10

   The story of a theft in Sabarmathi Ashram is interesting for the light, it sheds on the social philosophy of Mohan Das Karamchand Gandhi. The thieves had taken away a box belonging to Kasturi Bai. Instead of reporting to police, Gandhi observed that the thieves apparently believed the Ashram had things worth stealing and that he had failed to imbue the people of the locality, including the potential thieves with the spirit of the Ashram. As for Kasturi Bai's box he was, he said, surprised that she had possessed one! When she explained that it contained her grandchildren's cloths, she was told that it was for her children and grand children to mind their own cloths. From that day hers was the tinniest kit in the Gandhian entourage. Two more vows administered in Sabarmathi Ashram, one of fearlessness, and the other of anti-untouchability had a limited but contemporary interest; the fear of British rule, and the ill-treatment of the un-touchables had cramped the Indian people in different ways and the members of the ashram had to rise above those limitations.

   1. What is interesting in Sabarmathi Ashram?
   2. What had the thieves taken away?
   3. What did Kasturi Bai's box contain?
   4. Name the two vows administered in the ashram.
   5. What had cramped the Indian people in different ways?

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KLE Society's

Raja Lakhamagouda Science Institute (Autonomous),

Belagavi.

First Semester B.Sc. Degree Examination Nov - 2017

A02: KANNADA

Duration: 3 Hrs

Max Marks: 70

ಭಾಷೆ ಮತ್ತು ಬರಹದ ಶುದ್ಧಿಗೆ ಗಮನ ಕೊಡಲಾಗುವುದು.

ಪ್ರ. 1. 'ಭೇದದಲಿ ಹೊಕ್ಕಿರಿದನೊ' ಕಾವ್ಯಭಾಗದಲ್ಲಿ ಮೂಡಿ ಬಂದ ಕೃಷ್ಣನ ರಾಜನೀತಿ ಮತ್ತು ಕರ್ಣನ ಸ್ವಾಮಿನಿಷ್ಠೆಯನ್ನು ವಿವರಿಸಿ.   10 ಅಂಕಗಳು

ಅಥವಾ

'ಆದ್ಯೂರಿ ಶವಯಾತ್ರೆ' ಯಲ್ಲಿ ಜಕ್ಕಪ್ಪನ ಚಂಡಿತನವನ್ನು ಚಿತ್ರಿಸಿರಿ.

ಪ್ರ. 2. ನರೇಂದ್ರನ ಬಾಲ್ಯ ಮತ್ತು ಶಿಕ್ಷಣ ಕುರಿತು ಬರೆಯಿರಿ.   10 ಆಂಕಗಳು

ಅಥವಾ

ಸರ್ವ ಧರ್ಮ ಸಮ್ಮೇಳನದಲ್ಲಿ ಸ್ವಾಮಿ ವಿವೇಕಾನಂಧರು ಮಾಡಿದ ಭಾಷಣ ಕುರಿತು ವಿವರಿಸಿರಿ.

ಪ್ರ. 3. ಬೇಕಾದ ನಾಲ್ಕಕ್ಕೆ ಟಿಪ್ಪಣ ಬರೆಯಿರಿ.   5x4=20 ಅಂಕಗಳು

1) ಗರತಿ ಹಾಡು

2) ಅಲ್ಲಮ ಪ್ರಭು

3) ಪ್ರೀತಿ ಇಲ್ಲದ ಮೇಲೆ

4) ವಿಶ್ವನಾಥ ದತ್ತ

5) ಯುರೋಪ ಪ್ರವಾಸ

6) ಶ್ರೀರಾಮಕೃಷ್ಣ ಮಿಶನ್

ಪ್ರ. 4. ಬೇಕಾದ ಮೂರಕ್ಕೆ ಸಂದರ್ಭದೊಡನೆ ಸ್ಪಷ್ಟೀಕರಿಸಿರಿ.   5x3=15 ಅಂಕಗಳು

1) ಹಂಗಿನ ತವರಮನೆ ಸಾಕ.

2) ಅಮೃತಸಾಗರದೊಳಗಿರ್ದ ಆಕಳ ಚಿಂತೆ ಎಕೆ?

3) ಪ್ರೀತಿ ಇಲ್ಲದ ಹೂವು ಅರಳೀತು ಹೇಗೆ?

4) ಸ್ವಾಮಿ, ನೀವು ದೇವರನ್ನು ನೋಡಿದ್ದಿರಾ?

5) ಅಮೇರಿಕಾದ ಸಹೋದರ, ಸಹೋದರಿಯರ.

(ಮು.ತಿ.ನೋ)

ಪ್ರ. 5. ಒಂದೇ ವಾಕ್ಯದಲ್ಲಿ ಉತ್ತರಿಸಿರಿ. 1x15=15 ಅಂಕಗಳು

1) ಹಲಸಂಗಿ ಗೆಳೆಯರ ಗುಂಪಿನ ನೇತಾರ ಯಾರು?

2) ಬಂಗಾರ ಬಳಿಯಟ್ಟು ಯಾರಿಗೆ ಬೈಬಾರದು?

3) ಅಲ್ಲಮಪ್ರಭು ಹುಟ್ಟಿದ ಊರು ಯಾವುದು?

4) ಕರ್ಪೂರದ ಗಿರಿಯ ಉರಿ ಹಿಡಿದಡೆ...........?

5) ಕುಮಾರವ್ಯಾಸ ನಿಜನಾಮ ಏನು?

6) ಕುಮಾರವ್ಯಾಸನ ಜನ್ಮಸ್ಥಳ ಯಾವುದು?

7) ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪನವರ ಪೂರ್ಣ ಹೆಸರು ಹೇಳಿರಿ?

8) 'ಪ್ರೀತಿ ಇಲ್ಲದ ಮೇಲೆ' ಯಾವ ಕವನ ಸಂಕಲನದಿಂದ ಆಯ್ದುಕೊಳ್ಳಲಾಗಿದೆ?

9) ಮುದೆನೂರು ಸಂಗಣ್ಣನವರ ಜನನ ವರ್ಷ ಯಾವುದು?

10) 'ನಾವು ಹುಡುಗಿಯರೇ ಹೀಗೆ' ಎಂದು ಕವಯತ್ರಿ ಯಾರನ್ನು ಸಂಬೋಧಿಸಿ ಹೇಳಿದ್ದಾರೆ?

11) ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರ ಹುಟ್ಟು ಹೆಸರೇನು?

12) ನರೇಂದರನ ತಾಯಿ ಹೆಸರೇನು?

13) ದಕ್ಷಿಣೇಶ್ವರದ ದೇವಮಾನವ ಯಾರು?

14) ಚಿಕಾಗೋದ ಸರ್ವಧರ್ಮ ಸಮೇಳನದಲ್ಲಿ ಸ್ವಾಮಿ ವಿವೇಕಾನಂದರು ಭಾಷಣ ಮಾಡಿದ ದಿನ ಯಾವುದು?

15) ನಿವೇದಿತಾಳ ಮೊದಲಿನ ಹೆಸರೇನು?

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Reg. No.

Duration: 3 Hrs   Max Marks: 70

पाठ्य क्रम

"सदा गद्य-वाटिका

अनुवाद   सूचना:– सभी प्रश्नों के उत्तर देवनागरी लिपी में लिखिए:

प्र. I. सही उत्तर लिखिए (कोई दस)   1X10=10

1. गंगी के पति का नाम क्या है?
   अ) जोखू   ब) राजू   क) मलखू

2. श्रवणबेलगोल में कौनसी अदभुत मूर्ति हैं?
   अ) बौध्द   ब) बाहुबली   क) शंकर

3. ठाकुर सरदार सिंह के नौकर का नाम क्या है?
   अ) सल्लू   ब) कल्लू   क) लल्लू

4. दुर्मुख खरगोश के मुह में किस प्राणिका टुकडा था?
   अ) सर्प   ब) चूहा   क) गिरगीट

5. 'औरंगजेब की आखरीरात' एकांकी के एकांकीकार का क्या नाम है?
   अ) जयशंकर   ब) डॉ. रामकुमार वर्मा   क) सेठगोविंद दास

6. 'बहता पानी निर्मल' पाठ में लेखक को बचपन से क्या देखने का शौक है?
   अ) पेपर   ब) समंदर   क) नक्षा

7. "गेहूँ बनाम गुलाब' के लेखक का नाम क्या है?
   अ) श्री रामबृक्ष बेनीपुरी   ब) रामधारीसिंह दिनकर   क) विध्यानिवास मिश्र

8. जीवन में क्या निश्चित है?
   अ) प्रगती   ब) मृत्यु   क) हानि

9. किस ने हवा में एक मंत्र उछालदिया– करो या मरो'!
   अ) नाविक   ब) अधिकार   क) मैनेजर

10. 'के.एल.ई' ने अपने प्रथम कॉलेज नाम क्या रखा है?
    अ) लिंगराज कॉलेज   ब) निजलींगप्पा कॉलेज   क) राजालखमगौडा कॉलेज

11. 'सदा-गद्यवाटिका' के सम्पादक कौन है?
    अ) प्रा. आर. एन. हिरेमठ   ब) राजीव एस. हिरेमठ   क) सदा हिरेमठ

12. 'सद– गद्यवाटिका' में कितने पाठ हैं?
    अ) 7   ब) 9   क) 10

प्र. II. किन्हीं दो की सप्रसंग व्याख्या कीजिए: 5X2=10

1. "जरूर कोई जानवर कुएँ में गिरकर मरगया होगा; मगर दूसरा पानी आए कहाँ से?"

2. "करो या मरो' घबराओमत, जीत निश्चित है।"

3. 'राजन्न आप एक बच्चे को गोद लेंगे तो एक का कल्याण होगा ! अगर आप अपनी सारी जायदाद   :
   शिक्षा के लिये ट्रस्ट करेंगे तो हजारों होनहार विद्यार्थी इस से लाभान्वितह होंग ।"

प्र. III. किन्हीं दो प्रश्नों के सही उत्तर लिखिए: 10X2=20

1. डॉ. राजेंद्र प्रसाद कर्नाटक में क्या-क्या देखा?

2. 'बहता पानी निर्मल' पाठ का सारांश लिखिए ।

3. शराबी का मन किस के कारण परिवर्तन हुवा है, इस पर एक लेख लिखिए ।

4. स्वामी श्रदधानंद किसतरह महान होकर उनकी मौत किसतरह हुई ।

प्र. IV. किन्हीं तीन पर टिप्पणी लिखिए: 5X3=15

1. दुर्मख

2. औरंगजेब की वेदना

3. गेहूँ बनाम गुलाब

4. त्यागवीर लिंगराज की विशेषता

प्र. V. हिन्दी में अनुवाद कीजिए: 15 marks

Computer is one of the modern miracles of science. It is an instrument of recent times. Now it
has become the part and parcel of the human life. It has entered the every life of all. It is a
time and labour saving machine.

ಕಂಪ್ಯೂಟರ್ ಆಧುನಿಕ ವಿಜ್ಞಾನದ ಪವಾಡಗಳಲ್ಲಿ ಒಂದಾಗಿದೆ. ಇದು ಇತ್ತೀಚಿನ ಕಾಲದ ಒಂದು ಮುಖ್ಯ
ಉಪಕರಣವಾಗಿದೆ. ಈಗ ಇದು ಮಾನವ ಜೀವನದಲ್ಲಿ ಅವಶ್ಯಕ ಅಂಗವಾಗಿದೆ. ಇದು ಪ್ರತಿಯೊಬ್ಬನ ಪ್ರತಿದಿನದ
ಜೀವನವನ್ನು ಪ್ರವೇಶಿಸಿದೆ. ಇದು ಎಲ್ಲರ ಸಮಯವನ್ನು ದೈಹಿಕ ಶ್ರಮವನ್ನು ಉಳಿತಾಯ ಮಾಡುವ
ಯಂತ್ರವಾಗಿದೆ.

KLE Society's
Raja Lakhamagouda Science Institute (Autonomous)
Belagavi
First Semester B.Sc. Degree Examination Nov - 2017
A04: ADDITIONAL ENGLISH

Duration: **3 Hrs**

Max Marks: **70**

I. **Answer the following questions in a sentence each:**   1x10=10

  1. Who is Teddy Bompas?

  2. What title does Henry suggest in the end?

  3. How years many sarah and Albert completed to live together?

  4. Why were sarah and Albert suppose to leave the apartment?

  5. How much Jill pays for doctor?

  6. Who wrote the Never – Never Nest?

  7. Who is Wanda?

  8. Who is Larry?

  9. What is name of the husband in Lord Byron's Love letter?

  10. What is name of old Lady?

II. **Explain with reference to the context (any two) of the following**   5x2=10

  1. How will they know! why, my name is all over them.

  2. A Polish girl, she – her father died over here when she was sixteen and left her all alone.

  3. Charming! Charming! Such a cosy little room! And and such preety furniture.

  4. The place is Spooky. An empty building and you on the third floor.

III.

  a) Comment on the title the First and the Last.   10x1=10

<p align="center">OR</p>

  b) Sketch the character of Aurora Bompas.

IV.

  a) How does saul Bellow show wrecking life in family?   10x1=10

<p align="center">OR</p>

  b) Justify the title of the play the Never – Never – Nest.

Note: 1. On completing answers, compulsorily draw diagonal lines on the remaining blank pages.
2. Any revealing of identification, appeal to valuator and / or equations written will be treated as malpractice.

V. Read the following passage carefully and match the words with their meanings given in the chart below   1x10=10

Mr. Davis, I have just finished reading your X – rays, and I would like to discuss them with you. You have osteoarthritis in the middle f your back and scoliosis, which is a curvature of the spine. I can also feel the muscle spasms and pinched nerves from your shoulders to the base of your spine. While this may sound terrible to you it is not life threatening, nor it is something to worry about. At present, there is no cure for these problems, but you can control them with proper treatment. First of all, we need to adjust your diet a little the nurse will provide you with information on some foods to avoid completely and others whose consumption should be restricted.

Sl. No.	Word	Meaning
1	Osteoarthntis	Not permitted
2	Scoliosis	Dangerous or serious
3	Curvature	It is a lateral curative
4	Muscle spasms	Able to cure disease
5	Spine	Nerve compression
6	Pinched nerve	A rheumatologist can detect arthritis
7	Terrible	A sudden transitory constriction of passage
8	Threatening	Backbone
9	Consumption	The action of using up a resource
10	Restricted	Deliberately frightening

VI. **a)** Every year when monsoon begins the roads in our city, get potholes and many people face lots of difficulty because of this. Hence to pork this matter. Suggests a suitable title for this.   (5 marks)

b) Prepare a slogan for new campaing self employment.   (5 marks)

VII. Assume that Telco calls for the post of General Manager and you desire to apply for it. Hence, prepare a resume to apply for it.   (10 marks)

Max Marks: 70   **Duration: 3 hrs**

نصابی کتاب: کاروانِ ادب (حصہ نثر و نظم)

ہدایات : تمام سوالات لازمی ہیں۔ ہر سوال کے نشانات بائیں جانب درج ہیں۔

5×2 = 10

سوال نمبر ۱: کوئی پانچ سوالات کے جوابات دو یا تین جملوں میں لکھیے۔

۱) زمیندار نے شاہی خاندان کے لوگوں کے ساتھ کیسا سلوک کیا؟

۲) کورالی گاؤں میں شاہی خاندان کو کھانے کے لئے کیا میسر ہوا؟

۳) 'عبدالقادر' کون تھا؟

۴) 'مادھو اور گھیسو' کیسے انسان تھے؟

۵) مجتبیٰ حسین کو انگریز لڑکی فیض کے تعلق سے کیا کہتی ہے؟

۶) حیدرآباد کے مشاعرے میں فیض اپنا کلام کس طرح سنا رہے تھے؟

۷) لالہ کریا شنکر جی مسیح کس طرح سے پطرس کو جگاتے ہیں؟

1×10 = 10

" سوال نمبر ۲: مندرجہ ذیل سے کسی ایک کا تفصیلی جواب لکھیے۔

۱) بنت بہادر شاہ ظفر

۲) کفن

3×4 = 12

سوال نمبر ۳: بحوالہ متن کسی چار کی وضاحت کیجے۔

۱) "صاف کانوں پر ہاتھ رکھ لئے کہ میں تم لوگوں کو ٹھہرا کر اپنا گھر بار تباہ کرنا نہیں چاہتا"

۲) "بات اتنی ہے کہ میرا پلنگ مجھ کو ملا۔ میرا بچھونا مجھ کو ملا۔ میرا بیت الخلاء مجھ کو ملا"

۳) "مرنا ہے تو جلدی مریوں نہیں جاتی۔ دیکھ کر کیا کروں"

۴) "پھن لگانے سے کیا ملتا آکھر جل یہ تو جاتا ہے۔ پگھ بہو کے ساتھ تو نہ جاتا"

۵) "اردو کہیں نام ضرور سنا ہے۔ کہیں یہ وہ زبان نہیں جس میں فیض احمد فیض شاعری کرتے ہیں"

4×4 = 16

سوال نمبر ۳: کسی چار اشعار کی تشریح کیجے۔

۱) نہیں عشق جس وہ بڑا کوڑ ہے   کہ ہمیں اس سے مل پیا جائے نا

۲) آفاق کی منزل سے گیا کون سلامت   اسباب سنگ مداوا ہے اس آشفتہ سری کا

۳) میران نیم باز آنکھوں میں   ساری مستی شراب کی سی ہے

۴) حال دل یار کو لکھوں کیوں کر   ہاتھ دل سے جدا نہیں ہوتا

۵) لائی حیات آئے قضا لے چلی چلے   اپنی خوشی سے آئے ندا اپنی خوشی چلے

۶) بڑھاؤ نہ آپس میں ملت زیادہ   مبادا کہ ہو جائے نفرت زیادہ

۷) فرشتے سے بہتر ہے انسان بنتا   مگر اس میں پڑتی ہے محنت زیادہ

1×10= 10

سوال نمبر ۵: کسی ایک کا خلاصہ لکھیے۔

۱) حمد

۲) قید خانے کی رات

2×6 = 12

سوال نمبر ۶: کسی دو پر نوٹ لکھیے۔

۱) مرزا ضیاء الدین

۲) بستی

۳) فیض

KLE Society's

Raja Lakhamagouda Science Institute (Autonomous),

Belagavi.

First Semester B.Sc./BCA Degree Examination Nov - 2017

A10: INDIAN CONSTITUTION

Duration: **1 ½ Hrs**   Max Marks: **70**

Instructions to candidates:

1.   Instruction: Answer any 70 of the following questions in the OMR sheet provided.

1. When did the Indian Constitution come into force?
   (a) 26th November, 1949   (b) 15th August, 1947
   (c) 26th January, 1950   (d) 26th January, 1930
2. India has been described under Article-1 of the Constitution as
   (a) Union of States   (b) Federation   (c) Unitary State   (d) None of these
3. Setting a Supreme Court at Calcutta is a part of
   (a) Regulating Act of 1773   (b) Pitts India Act of 1784
   (c) Charter Act of 1793   (d) Charter Act of 1893
4. The Constitution of India is
   (a) Flexible   (b) Rigid   (c) Partly flexible and partly rigid   (d) None of these
5. Who was the chairman of the Drafting Committee for making the Constitution of India?
   (a) Rajendra Prasad   (b) Baldev Singh   (c) H. C. Mukherjee   (d) Dr. B. R. Ambedkar
6. Which among the following is not a feature of the Indian Constitution?
   (a) Parliamentary form of Government   (b) Federal form of Government
   (c) Double citizenship   (d) A written constitution
7. When did the Constituent Assembly adopt the Constitution of India?
   (a) 26th November, 1949   (b) 15th August, 1947
   (c) 26th January, 1950   (d) 26th January, 1930
8. The Preamble states that the Constitution derives its authority from
   (a) Indian Culture   (b) Government of India
   (c) The People of India   (d) The Supreme Court
9. How many articles are there in the Constitution of India now?
   (a) 440   (b) 441   (c) 443   (d) 448
10. The Government has declared which day as Constitution Day/National Law Day
    (a) 26th January   (b) 26th November   (c) 26th December   (d) 15th August
11. How much time it took for Constituent Assembly to finalise the constitution?
    (a) 2 Years 11 Months 18 Days   (b) 2 Years 9 Months 8 Days
    (c) 2 Years 7 Months 18 Days   (d) 2 Years 5 Months 20 Day
12. The words **socialist** and **secular** were added to the Preamble by
    (a) 44th Amendment   (b) 42nd Amendment
    (c) 52nd Amendment   (d) 46th Amendment
13. The Preamble to the Constitution of India declares India to be
    (a) Sovereign, Secular, Democratic, Republic   (b) Sovereign, Democratic, Republic
    (c) Sovereign, Socialist, Secular, Democratic, Republic   (d) Democratic, Republic
14. The Constitution of India provides
    (a) Double Citizenship   (b) Single Citizenship
    (c) Both (a) and (b)   (d) None of these
15. India is a
    (a) Communist State   (b) Bilingual State   (c) Secular State   (d) Capitalist State
16. Under which Article the procedure for Amendment of Constitution is given
    (a) Article-352   (b) Article-368   (c) Article-392   (d) Article-360
17. Which of the following articles deal with Fundamental Rights?
    (a) Article 5-11   (b) Article 12-35   (c) Article 14-18   (d) Article 12-40

18. Which of the following is given the power to implement the Fundamental Right by the Constitution?
(a) All courts in India
(b) The Parliament
(c) The President
(d) The Supreme Court and High Courts

19. Which right was deleted from the list of Fundamental Rights?
(a) Right to Equality
(b) Right to Freedom of Religion
(c) Right to Constitutional Remedies
(d) Right to Property

20. Which fundamental right is concerned with abolition of social discrimination?
(a) Right to equality
(b) Right against exploitation
(c) Right to life and liberty
(d) Cultural and education rights

21. Article 15 provides special provisions for
(a) Women and Children
(b) SC & STs
(c) Both(a) &(b)
(d) Only (a)

22. Article 17 of constitution of India
(a) Protects individual freedom
(b) Grants right to equality
(c) Abolishes Untouchability
(d) None of the these

23. Article 19 of the Constitution of India contains
(a) 9 Fundamental Freedoms
(b) 8 Fundamental Freedoms
(c) 7 Fundamental Freedoms
(d) 6 Fundamental Freedoms

24. Right to privacy is contained in
(a) Article 22
(b) Article 19
(c) Article 21
(d) Article 22

25. Right to life also includes right to
(a) Get education
(b) Contest Election
(c) Die
(d) None of these

26. A person arrested has to be produced before the Magistrate within
(a) 72 hours
(b) 12 hours
(c) 24 hours
(d) No such time limit is prescribed

27. Children below the age of _____ years are prohibited from working in any factory or mine
(a) 12 years
(b) 13 years
(c) 14 years
(d) 15 years

28. Which fundamental right prohibits trafficking in human beings?
(a) Right to equality
(b) Right against exploitation
(c) Right to freedom
(d) Right to property

29. Under Article 21A of Constitution of India is about
(a) Secondary education
(b) Primary education
(c) Higher education
(d) None of these

30. Indian Constitution recognises minorities on the basis of
(a) Colour
(b) Caste
(c) Population
(d) Religion

31. The right to Constitutional remedies is a
(a) Legal right
(b) Moral right
(c) Fundamental right
(d) None of the these

32. Which of the following writ is issued by the Court in case of unlawful detention of a person?
(a) Quo Warranto
(b) Habeas Corpus
(c) Mandamus
(d) Certiorari

33. The Directive Principles of State Policy are borrowed from the Constitution of
(a) USSR
(b) USA
(c) China
(d) Ireland

34. The Directive Principles of the State Policy are
(a) Justiciable
(b) Non Justiciable
(c) Mandatory
(d) Discretionary

35. Under which article the Fundamental Duties are included in Indian Constitution?
(a) Article 50
(b) Article 52
(c) Article 51A
(d) Article 54

36. The total number of Fundamental Duties mentioned in the Constitution are
(a) 9
(b) 10
(c) 11
(d) 12

37. The fundamental duties were included in the Constitution by the 42nd Amendment in the year
(a) 1971
(b) 1972
(c) 1975
(d) 1976

38. Respecting the National Flag and National Anthem is a
(a) Fundamental Right
(b) Fundamental Duty
(c) Directive Principle
(d) All

39. Which of the following rights cannot be suspended during emergency?
(a) Right to life and liberty
(b) Freedom of movement
(c) Right to organise meetings
(d) Right to speak

40. It is the duty of all to protect environment is included under the Article
(a) Article-51A (f)
(b) Article-51A (g)
(c) Article-51A (h)
(d) Article-51A (a)

41. What is the minimum age for the eligibility to be a Presidential candidate?
(a) 23 years
(b) 21 years
(c) 35 years
(d) 30 years

42. What is the official term of the President's office?
   (a) 5 years   (b) 10 years   (c) 3 years   (d) 4 years
43. Who appoints the Chief of Army, Navy and Air Force?
   (a) Prime Minister   (b) Defense Minister   (c) Foreign Minister   (d) President
44. If the President dies while in office, the Vice President can act as President for a maximum period of
   (a) 1 year   (b) 3 months   (c) 6 months   (d) 2 years
45. The President gives his resignation to the
   (a) Chief Justice of India   (b) Parliament   (c) Vice President   (d) Prime Minister
46. Who elects the president of India?
   (a) Electoral College   (b) Chief Minister   (c) Prime Minister   (d) Vice President
47. Which article of the Constitution empowers the President to promulgate ordinances?
   (a) Article-122   (b) Article-129   (c) Article-123   (d) Article-125
48. How many types of emergency have been visualized in the Constitution of India?
   (a) Four   (b) Three   (c) One   (d) Two
49. The President can proclaim emergency on the written advice of the
   (a) Speaker of Lok Sabha   (b) Prime Minister
   (c) Chief Justice of India   (d) Union Cabinet
50. Emergency proclamation is issued in case of
   (a) War   (b) External aggression   (c) Armed Rebellion   (d) All
51. Which of the following State has had the President's Rule imposed for a maximum number of times?
   (a) Kerala   (b) Punjab   (c) Bihar   (d) Manipur
52. What rank does the office of Vice-President have in the country?
   (a) First   (b) Second   (c) Third   (d) Fourth
53. Who is the ex-officio Chairman of Rajya Sabha?
   (a) President   (b) Prime Minister   (c) Chief Justice of India   (d) Vice President
54. Who is the Constitutional head of the State?
   (a) Chief Minister   (b) Governor   (c) Home Minister   (d) None
55. Who appoints the Prime Minister
   (a) President   (b) Council of ministers   (c) Lok Sabha   (d) Majority party
56. What is the nature of the Indian Political system?
   (a) Parliamentary System   (b) Presidential System
   (c) Both (a)& (b)   (d) Military Government
57. In India, the citizens have been given the right to vote on the basis of
   (a) Domicile   (b) Age   (c) Education   (d) None of the above
58. In Parliament of India Lower House is known as
   (a) House of People   (b) Rajya Sabha   (c) Council of States   (d) None of these
59. Our parliament consists of
   (a) Lok Sabha   (b) Rajya Sabha   (c) Both (a) &(b)   (d) only Rajya Sabha
60. Who is the first Woman Speaker of Lok Sabha?
   (a) Sarojani Naidu   (b) Annie Besant   (c) Indira Gandhi   (d) Meira Kumar
61. Which is the highest judicial authority in India whose decisions are binding on all Courts?
   (a) Supreme Court   (b) Parliament   (c) Law Minister   (d) Lok Sabha
62. Where is the Supreme Court of India situated?
   (a) Mumbai   (b) Kolkata   (c) New Delhi   (d) Chennai
63. A Judge of the Supreme Court of India is to hold office until he attains the age of
   (a) 58 years   (b) 62 years   (c) 60 years   (d) 65 years
64. How many types of writs are there in Indian constitution?
   (a) 5   (b) 8   (c) 10   (d) 15
65. Judge of the Supreme Court can be removed from offices by
   (a) Executive order   (b) Impeachment   (c) Judicial order   (d) Bureaucracy
66. The Article 370 of the Constitution deals with
   (a) Special status for Jammu and Kashmir   (b) Special provisions for minorities
   (c) Amendment method   (d) None of the above
67. How many members the President of India nominates to Rajya Sabha?
   (a) 10   (b) 11   (c) 13   (d) 12

68. Judicial Review signifies that the Supreme Court
    (a) Can impeach the President
    (b) Can declare a state law as unconstitutional
    (c) Can review cases decided by the High Courts
    (d) Has final authority over all cases
69. Which is the list that contains subjects in which both the Centre and the States can legislate?
    (a) Union list
    (b) State list
    (c) Residuary list
    (d) Concurrent list
70. Under which article of the Constitution the Supreme Court of India has been established?
    (a) 24
    (b) 124
    (c) 224
    (d) 231
71. Indian Constitution was amended for first time in the year
    (a) 1951
    (b) 1950
    (c) 1959
    (d) 1958
72. Village Panchayat is organized under which article of the Constitution of India
    (a) Article-37
    (b) Article-38
    (c) Article-39
    (d) Article-40
73. All speeches made in the House of People are addressed to
    (a) The Prime Minister
    (b) The Speaker
    (c) Minister for Parliamentary Affairs
    (d) Respective Ministers
74. Who was the first Prime Minister of India?
    (a) Jawaharlal Nehru
    (b) Indira Gandhi
    (c) Dr. Rajendra Prasad
    (d) Mahatma Gandhi
75. Panchayat Raj was introduced in the Country in
    (a) 1957
    (b) 1952
    (c) 1951
    (d) 1959
76. Who is the highest Legal Officer of Union Government?
    (a) Attorney General
    (b) Law Minister
    (c) Prime Minister
    (d) None of these
77. Which Right was remarked by Dr. B.R. Ambedkar as the "Heart and soul of the Constitution"?
    (a) Right to Equality
    (b) Right to Freedom
    (c) Right to Education
    (d) Right to Constitutional remedies
78. Fraternity in the Preamble means
    (a) Spirit of Brotherhood
    (b) Unity and Integrity
    (c) Social Justice
    (d) Elimination of Justice
79. The Constitution names our country under Article-1 as
    (a) Bharat
    (b) Aryavarta
    (c) Hindustan
    (d) India that is Bharat
80. Three-tier system was first advocated by the Committee headed by
    (a) Balwant Rai Mehta
    (b) Rajesh Mehta
    (c) Jawaharlal Nehru
    (d) Mahatma Gandhi

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KLE Society's

Raja Lakhamagouda Science Institute (Autonomous),
Belagavi.

First Semester B.Sc. Degree Examination Nov – 2017
A11: STATISTICS

Duration: 3 Hrs   Max Marks: 70

Instructions to candidates:
1) Mathematical and Statistical tables will be supplied on request.
2) Use of calculators is permitted.

I.   Answer any FIVE of the following   2X5=10

1. Distinguish between a variable and an attribute.
2. Name the different types of graphs.
3. Find the Geometric Mean of **20, 25, 22, 0, 28.**
4. What is positive Skewness and negative Skewness?
5. What is the probability of selecting a red card from a pack of playing cards?
6. Define a random variable.
7. Define expectation.

II.   Answer any SIX of the following   5X6=30

8. Explain the scope of statistics.
9. What are the steps involved in the construction of pie-chart.
10. Write the merits and demerits of Median.
11. What are the requisites of an ideal measure of central tendency?
12. Find mean and variance of first **'n'** natural numbers.
13. State and prove addition theorem of probability.
14. A problem in statistics is given to three students **A, B** and **C** whose chances of solving it are ½, ¾ and ¼ respectively. What is the probability that the problem will be solved if all of them try independently?
15. A random variable 'X' has the following probability function

X	:	0	1	2	3	4	5	6	7
P(x)	:	0	k	2k	2k	3k	k^2	$2k^2$	$7k^2+k$.

Find K, hence find the value of P(x < 6).

III. Answer any THREE of the following   10X3=30

16. State the properties of Arithmetic Mean and prove any two of them.

17. If n_1 and n_2 are the sizes and $\bar{x}_1, \bar{x}_2$ the means and σ_1, σ_2 the standard deviations of two series then show that standard deviation σ of the combined series of size $n_1 + n_2$ is given by

$$\sigma^2 = \frac{1}{n_1\, n_2} \left[n_1 \left(\sigma_1^2 + d_1^2 \right) + n_2 \left(\sigma_1^2 + d_1^2 \right) \right]$$

Where $d_1 = \bar{x}_1 - \bar{x}$, $d_2 = \bar{x}_2 - \bar{x}$ and $\bar{x} = \frac{n_1 \bar{x}_1 + n_2 \bar{x}_2}{n_1 + n_2}$

18. Three groups of children contain respectively 3 girl and 1 boy ; 2 girls and 2 boys and 1 girl and 3 boys. One child is selected at random from each group. Show that the three selected consists of 1 girl and 2 boys is 13/32.

19. State and prove Bayes theorem.

20. A continuous random variable 'X' has the has the following pdf

$$f(x) = \begin{cases} kx^2 (1-x^3) & ; 0 \le x \le 1 \\ \\ 0 & ; \text{otherwise} \end{cases}$$

Where K is a constant. Find the value of **K**. Using the value of **K** kind its mean and variance.

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KLE Society's

Raja Lakhamagouda Science Institute (Autonomous),

Belagavi.

First Semester B.Sc. Degree Examination Nov– 2017

A12: MATHEMATICS: PAPER – I

Duration: 3 Hrs | Max Marks: 70

Instructions to candidates:
1) Question paper has 3 sections. Answer all questions.
2) Simple Calculators are allowed.
3) Write all the intermediate steps and draw diagrams whenever necessary.

I Answer any FIVE of the following: 2X5=10

1. Find the value of x satisfying $\dfrac{1}{x-1} > -2, \quad x \in \mathbb{R}$.

2. Define least upper bound (**l. u. b**).

3. Discuss the continuity of the the function $f(x) = \begin{cases} 1+x, & \text{if } x \le 2 \\ 5-x, & \text{if } x > 2 \end{cases}$ at **x = 2.**

4. Find the nth derivative of $y = \dfrac{1}{ax+b}$ is $y_n = \dfrac{(-1)^n . a^n . n!}{(ax+b)^{n+1}}$

5. If $y = \sin(ax+b)$ then show that $y_n = a^n . \sin\left(ax+b+n\dfrac{\pi}{2}\right)$

6. State Lagrange's Mean Value theorem

7. Evaluate $\lim\limits_{n \to \infty} \dfrac{(n+2)! + (n+1)!}{(n+2)! - (n+1)!}$

II Answer any SIX of the following: 5X6=30

8. If $a, b, c \in R$ are all positive then show that $\dfrac{a+b+c}{3} > \sqrt[3]{abc}$; equality holds if a = b= c.

9. If $\lim\limits_{x \to a} f(x) = l$ and $\lim\limits_{x \to a} g(x) = m$ then prove that $\lim\limits_{x \to a} [f(x) + g(x)] = l + m$

10. State and prove Intermediate Value theorem.

11. Find the nth derivative of $y = \dfrac{x^2}{(x+2)(2x+3)}$

12. If $y^{1/m} + y^{-1/m} = 2x$, then prove that $(x^2 - 1)y_{n+2} + (2n+1) xy_{n+1} + (n^2 - m^2)y_n = 0$.

13. State and prove Rolle's theorem.

14. Show that $x > \tan^{-1} x > \dfrac{x}{1+x^2}$, $\forall x > 0$.

15. Evaluate $\lim\limits_{x \to 0} \dfrac{\sin(\pi \cos^2 x)}{x^2}$, if exists.

III Answer any THREE of the following: 10X3 = 30

16.a) Solve the inequality $\left|\dfrac{3x+4}{x-7}\right| < 1$.

 b) Prove that $\lim\limits_{x \to 0} x.\sin\left(\dfrac{1}{x}\right) = 0$.

17.a) State and prove Leibnitz's theorem for the nth derivative of product of two functions having derivatives of nth order.

 b) If $x + y = 1$, then prove that

$$\dfrac{d^n}{dx^n}(x^n.y^n) = \lfloor n.\{ y^n - (^nC_1)^2.y^{n-1}x + (^nC_2)^2 y^{n-2}.x^2 - + \ldots\ldots\ldots + (-1)^n x^n\}$$

18.a) State and prove Cauchy's Mean Value theorem

 b) Verify Cauchy's Mean Value theorem for the function $f(x) = e^x$ and $g(x) = e^{-x}$ in [a,b].

19.a) Verify Rolle's theorem for the function $f(x) = x^3 - 3x^2 - x + 3$ in [1, 3].

 b) If $f(x)$ is continuous in a closed interval [a,b] then for a given $\varepsilon > 0$ the interval can be divided into finite number of sub intervals such that $|f(x_1) - f(x_2)| < \varepsilon$, whenever x_1 and x_2 are any two points in the same sub interval.

20.a) Prove that $\cos x = 1 - \dfrac{x^2}{2!} + \dfrac{x^4}{4!} - + \ldots\ldots$ using Maclaurin's series.

 b) If $f(x) = \begin{cases} \dfrac{x^2 - 3x + 2}{x - 2}, & \text{when } x \neq 2 \\ k + 2, & \text{when } x = 2 \end{cases}$

find **k**, so that the function $f(x)$ is continuous at $x = 2$.

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KLE Society's

Raja Lakhamagouda Science Institute (Autonomous)
Belagavi.
First Semester B.Sc. Degree Examination Nov – 2017
A21: MATHEMATICS: PAPER – II

Duration: 3 Hrs   **Max Marks: 70**

Instructions to candidates:

1) Question paper has 3 sections. Answer all questions.
2) Simple Calculators are allowed.
3) Write all the intermediate steps and draw diagrams whenever necessary.

I. Answer any FIVE of the following: $2 \times 5 = 10$

1. Define Countable and Uncountable set.

2. State Remainder theorem.

3. Using Factor theorem verify that $x + 4$ is a factor of $5x^4 + 16x^3 - 15x^2 + 8x + 16$.

4. Prove that a skew symmetric determinant of odd order vanishes.

5. Find the rank of the matrix $A = \begin{bmatrix} 2 & 2 & 2 \\ 5 & 5 & 5 \\ 3 & 3 & 3 \end{bmatrix}$

6. State the conditions under which a system of non – homogeneous linear equations will have i) a solution   ii) no solution

7. Prove that $\tanh(x - y) = \dfrac{\tanh x - \tanh y}{1 - \tanh x \tanh y}$.

II. Answer any SIX of the following: $5 \times 6 = 30$

8. Prove that the set $\mathbb{N} \times \mathbb{N}$ is countable.

9. Find the values of a and b so that $(x - 2)^2$ is a factor of $x^4 - 5x^3 + 9x^2 + ax + b$

10. Derive the relation between roots and coefficient of a polynomial equation of nth degree.

11. Evaluate $\Delta = \begin{vmatrix} 1+a & 1 & 1 & 1 \\ 1 & 1+b & 1 & 1 \\ 1 & 1 & 1+c & 1 \\ 1 & 1 & 1 & 1+d \end{vmatrix}$

12. Find the rank of the matrix by reducing it to normal form $\begin{bmatrix} 2 & 3 & -1 & -1 \\ 1 & -1 & -2 & -4 \\ 3 & 1 & 3 & -2 \\ 6 & 3 & 0 & -7 \end{bmatrix}$

13. Find the inverse of the matrix by using elementary row transformation $\begin{bmatrix} 2 & 4 & 3 \\ 0 & 1 & 1 \\ 2 & 2 & -1 \end{bmatrix}$

14. Prove that $-256 \sin^7 \theta \cos^2 \theta = \sin 9\theta - 5\sin 7\theta + 8\sin 5\theta - 14\sin \theta$

15. If $\log\left[\tan(\frac{\pi}{4} + i\frac{x}{2})\right] = i \tan^{-1}(\sin hx)$

III Answer Any THREE of the following: 10 x 3 = 30

16. a) Let $\{A_\alpha\}_{\alpha \in I}$ be an indexed family of sets then prove that $\left|\bigcup\limits_{\alpha \in I} A_\alpha\right|' = \bigcap\limits_{\alpha \in I} A'_\alpha$

   b) Prove that an equivalence relation on a set A partitions it into equivalence classes.

17. a) Solve the equation $x^3 - 6x^2 + 3x + 10 = 0$ given that roots are in A.P.

   b) State and prove Rational root theorem.

18. a) If Δ is a determinant of order n and Δ' is the reciprocal determinant of $\Delta \neq 0$, prove that $\Delta' = \Delta^{n-1}$

   b) Solve the system of equations by using E – transformation

   $x_1 + x_2 - x_3 + x_4 = 0$
   $x_1 - x_2 + 2x_3 - x_4 = 0$
   $3x_1 + x_2 + x_4 = 0$

19. a) Prove that the elementary transformation do not alter the rank of a matrix.

   b) Solve the system of equations by matrix method

   $2x_1 + x_2 - x_3 + 3x_4 = 8$
   $x_1 + x_2 + x_3 - x_4 + 2 = 0$
   $3x_1 + 2x_2 - x_3 = 6$
   $4x_2 + 3x_3 + 2x_4 + 8 = 0$

20. a) Find the sum of the series of

   $\sin \alpha + \sin(\alpha + \beta) + \sin(\alpha + 2\beta) + \cdots + \sin(\alpha + (n-1)\beta)$.

   b) Prove that $i \log\left(\frac{x-i}{x+i}\right) = \pi - 2 \tan^{-1} x$.

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KLE Society's

Raja Lakhamagouda Science Institute (Autonomous),
Belagavi.

First Semester B.Sc. Degree Examination Nov - 2017
A13: PHYSICS

Duration : 3 Hrs

Max Marks : 70

Instructions to candidates:
1) Attempt all Questions.
2) Simple calculators are allowed for calculations.

I.   Answer any FIVE of the following: 2X5=10

1. What is centrifugal force?

2. Define non-inertial frame.

3. What are the damped vibrations?

4. What are Lissajous figures?

5. Define bulk modulus.

6. A steel wire of 5m in length is stretched by a length of 0.424×10^{-4}m by a weight of 5 kg calculate the strain acting on the wire.

7. Find the difference of pressure between the inside and outside of a soap bubble of radius 1×10^{-2} m. surface tension of soap solution is 3.2×10^{-2} N/m.

II.   Answer any SIX of the following :   5X6=30

8. Derive the Galilean transformation equation of length.

9. Derive the differential equation of linear SHM.

10. Derive an expression for Poiseulle's formula for the flow of liquid through a capillary tube.

11. Derive an expression for bending moment of a beam.

12. State and prove Keplers second law of planetary motion form Newtons laws.

13. Calculate Young's modulus of a wire 1m long and 3mm thick, which increases by 1 mm, when pulled with a force of 1280 kg. wt.

14. A body executes SHM such that its velocity at mean position is 1 m/sec and acceleration at one of the extremity is 1.57 m/sec^2. Calculate the time period of vibration.

15. A uniform bar of 2m oscillates about a knife edge 0.5 m from one end. Calculate the period of oscillation.

Important Note: 1. On completing answers; compulsorily draw diagonal lines on the remaining blank pages.
2. Any revealing of identification, appeal to valuator and / or equations written will be treated as malpractice.

III. Answer any THREE of the following: 10X3=30

16. Derive the expression for radial and transverse components of velocity for motion along the curved path of a particle   [5+5]

17. What is resonance? Explain experimental determination of unknown frequency by Helmtholtz resonator   [2+8]

18. Derive an expression for time periods of a compound pendulum & show that the centre of oscillations and suspension are interchangeable   [6+4]

19. Derive an expressions for moment of inertia of rectangular lamina.

    i) About an axis through its centre and parallel to one of its side.

    ii) About an axis through its centre & perpendicular to its plane.   [5+5]

20. What is surface tension? And show that the excess of pressure acting on the curved surface is given by $P = 2T \left(\frac{1}{r_1} + \frac{1}{r_2} \right)$.

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KLE Society's

Raja Lakhamagouda Science Institute (Autonomous), Belagavi.

First Semester B.Sc. Degree Examination Nov - 2017

A14: CHEMISTRY

Duration: 3 Hrs　　　　　　　　　　　　　　　　**Max Marks: 70**

Instruction to Candidates:

1. *Attempt all questions.*
2. *Draw neat labelled diagrams and give equations wherever necessary*

I.　　**Answer any FIVE of the Following.**　　　　　　　　　　**2X5=10**

1. Calculate the Percentage of carbon and hydrogen in Methane.

2. Calculate the oxidation number of S in $Na_2S_2O_3$.

3. What is Elimination reaction? Give an example.

4. Explain classification of organic compounds with example.

5. Define Salt hydrolysis.

6. Define collision number.

7. State Nernst Distribution Law.

II) Answer any SIX of the following.　　　　　　　　　　**5X6=30**

8. What are quantum numbers? Explain the significance of the Azimuthal and Spin quantum numbers.

9. Write a note on d and f block elements.

10. Explain the Somerfield's Extension of Bohr's Theory of an atom.

11. What are carbanions? Explain structure of carbanion.

12. Explain electrophiles, nucleophiles and free radicals with examples.

13. Explain E and Z notation for 2-Butene and Butenedioc acid.

14. Define solubility of a solid. Explain the factors influencing the solubility.

15. How is critical volume determined?

III) Answer any THREE of the following   10X3 = 30

16.a) Explain and Draw Shapes of s and p orbitals.

   b) Explain Ostwald's theory of acid-base indicators.

17.a) Explain SP^2 hybridization taking ethylene as an example.

   b) Explain the stability of carbocations based on Inductive effect and Resonance effect.

18.a) Derive an expression for hydrolysis constant and degree of hydrolysis of salt of weak acid and strong base.

   b) State and verify Henry's Law .Give its Limitations.

19.a) Derive Vander Waals reduced equation of state.

   b) Calculate the critical temperature of a gas for which Pc is 100 atm and b is 0.05 dm^3 mol^{-1} (R=0.0821 dm^3 atm K^{-1} Mol^{-1}).

20.a) What is Ionisation energy? Explain variation of Ionisation energy along the group.

   b) Write a note on conformational analysis with reference to Ethane.

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Reg. No. ☐☐☐☐☐☐☐☐

Duration: 3 Hrs   Max Marks: 70

Instructions to candidates:

    1) Attempt all questions.

    2) Draw labelled diagrams wherever necessary.

I.   Answer any FIVE of the following: 2X5=10

  1. Xenia.

  2. Scutellum.

  3. MGU.

  4. Colletors.

  5. Bulliform cell.

  6. Prosenchyma.

  7. Brachysclereids.

II.   Answer any SIX of the following :   5X6=30

  8. What is meristem, mention the different types of meristems.

  9. Write a note on different types of sclereids.

  10. With a neat labelled diagram explain Anatropous ovule.

  11. Write a note on apomixes.

  12. Explain the T.S of Monocot root with labeled diagram.

  13. Write a note on Endosperm haustoria.

  14. Write a note on syngamy and triple fusion.

  15. Describe the different types of vascular bundles.

III.   Answer any THREE of the following: 10X3=30

  16. Describe the embryogeny in Monocot.

  17. With a neat labelled diagram describe the normal secondary growth in Dicot root.

  18. Describe the mechanical tissue system.

  19. Give an account of double fertilization.

  20. Describe the structure of Dicot and Monocot seed.

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KLE Society's

Raja Lakhamagouda Science Institute (Autonomous),

Belagavi.

First Semester B.Sc Degree Examination Nov - 2017

A16: ZOOLOGY

Duration: 3 Hrs

Max Marks: 70

Instruction to Candidates

1) Attempt all questions.
2) Draw neat labelled diagrams wherever necessary

I Answer any Five of the following.

2x5=10

1. What is binomial nomenclature?
2. Name any two classes of phylum Mollusca.
3. What is metamerism?
4. Name any two larval stages of echinoderms.
5. Assign the following to their respective phyla, a) Honey bee b) Unio.
6. Sketch and label-Leg of cockroach
7. Name the classes of phylum platyhelminthes.

II Answer any Six of the following.

5x6=30

8. Write a note on Asexual reproduction in protozoans.
9. Explain syconoid type of canal system in sponges.
10. Write the general characters of phylum coelenterata.
11. Sketch and label-Mouth parts of cockroach.
12. Explain the externals of unio with a neat labeled diagram.
13. Sketch and label-Nervous system of earthworm.
14. Explain excretory system in liver fluke.
15. Explain parasitic adaptations in Aschelminthes.

III Answer any Three of the following.

10x3=30

16. Explain in brief life history of hydra with a neat labeled diagram.
17. Explain water vascular system in star fish with a neat labeled diagram.
18. Explain digestive system of unio with a neat labeled diagram.
19. Write the general characters of phylum Annelida and classify upto classes with suitable examples.
20. Explain the digestive system of cockroach with a neat labeled diagram.

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KLE Society's

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First Semester B.Sc. Degree Examination Nov - 2017

A17: ELECTRONICS

Duration: **3 Hrs**   Max Marks: **70**

Instructions to candidates:
1) Attempt all Questions.
2) Draw diagrams, wherever necessary.

I. Answer any FIVE of the following   **2X5=10**

1. How do you represent ideal and practical voltage sources?

2. State Thevenin's theorem.

3. Mention the difference between FWR and HWR.

4. What is clamper? Draw output waveform of a positive clamper.

5. For an FET, the amplification factor is 30 and drain resistance in 10 kΩ. Find its transconductance.

6. What is the necessity of a fuse?

7. What are transducers?

II. Answer any SIX of the following.   **5X6=30**

8. In the following circuit, find the current through R_L using Norton's theorem,
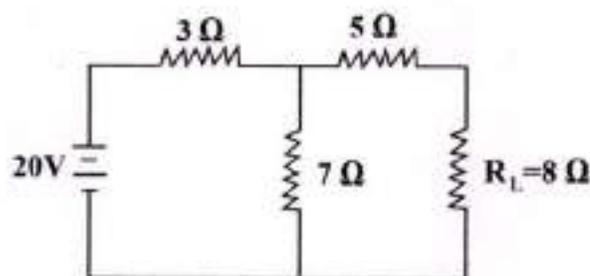
9. State and prove maximum power transfer theorem.

10. Derive expressions for I_{dc} and I_{rms} for a full wave rectifier.

11. With a neat circuit diagram, explain the working of a capacitor filter.

12. Define α, β and γ for a transistor. Establish relation between them.

13. Explain the construction and working of enhancement pmos.

14. Explain the construction and working of photoransistor.

15. Write a note on capacitive and inductive transduscers.

III.   **Answer any THREE of the following.**   10X3=30

16. State and prove superposition theorem.

17. **a)** Define the terms   **i)** TUF   **ii)** PIV   **iii)** ripple factor

     b) Derive an expression for efficiency of a full wave rectifier.   [6+4]

18. Explain the construction, working and characteristics of n-p-n transistor in
     C-E configuration.

19. With a neat diagram, explain the construction, working and characteristics of LED.

20. **a)** Explain how CRO is used for the measurement of voltage, frequency and phase.

     b) Write a note on thermocouple and thermistor.   [5+5]

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KLE Society's

Raja Lakhamagouda Science Institute (Autonomous),

Belagavi.

First Semester B. Sc Degree Examination Nov – 2017

A18: BIOTECHNOLOGY

Duration: 3 Hrs   Max Marks: **70**

Instruction to candidates
1) Attempt all questions.
2) Draw neat labeled diagrams wherever necessary

I   Answer any FIVE of the following.   2X5=10

1. Define spectroscopy.

2. What is staining?

3. What is cell cycle?

4. Define cell signalling.

5. Define Biotechnology.

6. What is electrophoresis?

7. Define centrifugation.

II   Answer any SIX of the following.   5X6=30

8. Write scope of Biotechnology.

9. Explain oncogenes.

10. Write principle and applications of UV- Visible spectroscopy.

11. Write a note on passive transport.

12. Give a note on classification of chromosomes.

13. What are the applications of fluorescent microscope?

14. Give a short note on paper chromatography.

15. Write functions of microfilament.

III Answer any THREE of the following.   10X3=30

16. Explain Gel Electrophoresis.

17. Give detailed account on compound microscope.

18. Explain density Gradient centrifugation.

19. Explain applications of radio isotopes.

20. Explain process of Meiosis.

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KLE Society's

Raja Lakhamagouda Science Institute (Autonomous),

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First Semester B.Sc. Degree Examination Nov- 2017

A19: COMPUTER SCIENCE

Duration : **3 Hrs**   Max Marks : **70**

Instructions to candidates:
1) Attempt all Questions.
2) Draw diagrams, wherever necessary.

I.   Answer any FIVE of the following: **2X5=10**

1.   Mention any two characteristics of computer.

2.   Convert Decimal Number $29_{(10)}$ to binary number.

3.   Mention any two rules for naming a variable.

4.   Define an array. Give an example.

5.   What is function prototype? Write syntax.

6.   Define operating system. Give an example.

7.   Define structure. Write a syntax.

II.   Answer any SIX of the following :   **5X6=30**

8.   Explain the features of 3rd and 4th generations computer.

9.   Define flow chart. Draw a flowchart for largest of three numbers.

10. Explain switch statement with an example.

11. Explain the data types used in C with examples.

12. Write a C program to check whether a given number prime or not.

13. Explain any Four string handling functions.

14. Differentiate structure and union.

15. Explain simple if and else – if statements with example.

III.   Answer any THREE of the following: **10X3=30.**

16. Draw a block diagram of computer explain each components.

17. Explain the basic structure of C – program with example.

18. Define operators and expression. Explain them in detail.

19. Write a C – program to find factorial of a given number using function.

20. What is function? Explain types of functions used in C – language.

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