

This question paper contains 8 printed pages]

G—41—2015

FACULTY OF SCIENCE

B.Sc. (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2015

CHEMISTRY

Paper II

(Physical and Inorganic Chemistry)

(MCQs and Theory)

(Thursday, 16-4-2015) Time : 10.00 a.m. to 12.30 p.m.

Time—2½ Hours

Maximum Marks—10+30=40

N.B. :- (i) Attempt All questions.

(ii) All questions carry equal marks.

(iii) Use separate answer-sheet (OMR sheet) for MCQ number 1 (one).

P.T.O.

(MCQ)

1. Select the *correct* answer for each of the following multiple choice questions :

(i) $\log_{10}(10 \times 100) = \dots\dots\dots$

(a) 2

(b) 3

(c) 4

(d) 5

(ii) $\frac{d}{dx} (\cos x)$ is equal to.....

(a) $\sin x$

(b) $\operatorname{cosec} x$

(c) $-\sin x$

(d) $\tan x$

(iii) Chemical adsorption generally.....with temperature.

- (a) increases
- (b) decreases
- (c) remains the same
- (d) none of the above

(iv) The correct value of critical pressure (P_C) is given by the term :

- (a) $3b$
- (b) $\frac{8a}{27Rb}$
- (c) $\frac{a}{27b^2}$
- (d) None of the above

3)

(v) The gas can be liquefied at :

- (a) low pressure and low temperature
- (b) high pressure and high temperature
- (c) low pressure and high temperature
- (d) high pressure and low temperature

of

(vi) Sodium chloride (NaCl) is an example of :

- (a) Simple cubic lattice
- (b) Body centred cubic lattice
- (c) Face centered cubic lattice
- (d) None of the above

(vii) The amorphous solid among the following is :

- (a) Table salt
- (b) Diamond
- (c) Graphite
- (d) Plastic

(viii) Which of the following alkali metals forms superoxide ?

- (a) Na
- (b) Li
- (c) K
- (d) None of the above

(ix) Ionic hydride is formed by :

(a) Li^+ ion

(b) Na^+ ion

(c) Ca^+ ion

(d) All of the above

(x) The oxidation number of oxygen in Na_2O_2 is.....

(a) -1

(b) +1

(c) +2

(d) -2

(Theory)

Section 'A'

(Physical Chemistry)

2. Answer any *two* of the following :

(a) (i) State and explain permutation.

(ii) Calculate pOH of 0.02 M HCl solution.

P.T.O.

(b) Distinguish between physical adsorption and chemical adsorption and explain 'Freundlich adsorption isotherm'.

(c) Derive Kinetic gas equation $PV = \frac{1}{3} mnu^2$.

(d) (i) Derive Bragg's equation, $n\lambda = 2d \sin \theta$.

(ii) State law of constancy of interfacial angles.

3. Answer any two of the following :

(a) What is average velocity ? Calculate Root Mean Square (RMS)

velocity of N_2 molecule at $0^\circ C$. ($R = 8.314 \text{ JK}^{-1} \text{ mol}^{-1}$).

(b) Define 'Unit cell' and 'Space lattice'. Discuss various types of

elements of symmetry.

- (c) (i) Define adsorption and discuss its mechanism.
- (ii) What are the units of van der Waals' constants 'a' and 'b' ?
- (d) (i) Find the equation of straight line passing through (2, 4) and (4, 6) having intercept-3.
- (ii) Define critical temperature and give the principle of Claude's method of liquification of gases.

Section 'B'

(Inorganic)

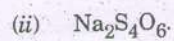
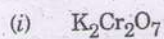
4. Answer any *two* of the following :

- (a) Give general characteristics of s-block elements.
- (b) What is diagonal relationship ? Give the diagonal relationship between lithium and magnesium (any *eight* points).

P.T.O.

- (c) (i) What are 'Wrap around complexes' ? Explain.
- (ii) Define oxidation, reduction on the basis of electronic concept.
- (d) Discuss the different rules to assign oxidation number.

Assign the oxidation number to the underlined elements :



This question paper contains 7 printed pages]

A—38—2015

FACULTIES OF ARTS/SCIENCE/COMMERCE/

SOCIAL SCIENCES/FINE ART

B.A./B.Sc./B.Com./B.S.W./B.F.A. (First Year)

(First Semester) EXAMINATION

MARCH/APRIL, 2015

HINDI (Second Language)

Paper I

(साहित्य भारती)

(MCQ and Theory)

(Thursday, 9-4-2015) Time : 10.00 a.m. to 12.30 p.m.

Time—2½ Hours

Maximum Marks—10+30=40

N.B. :- (i) सभी प्रश्न अनिवार्य हैं।

(ii) विभाग 'अ' में बहुपर्यायी प्रश्नों के लिए नकारात्मक अंक पद्धति होगी।

(iii) विभाग 'ब' में अंकों का विभाजन दाहिनी ओर किया गया है।

P.T.O.

विभाग 'अ'

निम्नलिखित बहुपर्यायी प्रश्नों के उत्तर लिखिए :

10

1. जैनेन्द्र कुमार का जन्म कौनसे जिले में हुआ ?
 - (A) देवरिया
 - (B) कानपुर
 - (C) अलीगढ़
 - (D) लखनऊ
2. 'Petition' शब्द का हिंदी रूप क्या है ?
 - (A) याचिका
 - (B) प्रमाणक
 - (C) अनुस्मारक
 - (D) प्रस्ताव
3. सूर्यकान्त त्रिपाठी 'निराला' की पत्नी का नाम क्या है ?
 - (A) सुधादेवी
 - (B) मनोहरादेवी
 - (C) श्यामादेवी
 - (D) महादेवी

4. अमरकान्त आन्दोलन के कहानीकार हैं।
- (A) आँचलिक कहानी
(B) सचेतन कहानी
(C) नयी कहानी
(D) समान्तर कहानी
5. कहानी में शहरी मध्यवर्ग और गाँव के किसान वर्ग की मनोवृत्तियों का चित्रण हुआ है।
- (A) सच बोलने की भूल
(B) त्रिबेनी
(C) नशा
(D) लड़की की शादी
6. 'Notification' शब्द का हिंदी रूप क्या है ?
- (A) नामांकन
(B) अधिसूचना
(C) अध्यादेश
(D) कार्यान्वय

7. निम्नलिखित में से कौनसी रचना हरिवंशराय बच्चन की आत्मकथा है ?
- (A) मधुबाला
(B) सतरंगिनी
(C) क्या भूलूँ क्या याद करूँ
(D) मिलन यामिनी
8. निम्नलिखित में से किस कहानी में धार्मिक आडम्बर और अंधविश्वास का चित्रण हुआ है ?
- (A) लड़की की शादी
(B) एष धर्म: सनातन
(C) त्रिबेनी
(D) नशा
9. घर बैठा ही जोड़ै तार।
क्यों सखि सज्जन, नहिं
- (A) पुलिस
(B) अखबार
(C) छापाखाना
(D) अंगरेज

10. 'यह दीप अकेला' कविता में 'दीप' किसका प्रतीक है ?

- (A) व्यक्ति
- (B) समाज
- (C) नदी
- (D) उपर्युक्त में से कोई नहीं

विभाग 'ब'

2. ससंदर्भ व्याख्या कीजिए :

5

"जीवन में वह था एक कुसुम,

थे उस पर नित्य निछावर तुम,

वह सूख गया तो सूख गया,

मधुवन की छाती को देखो,

सूखी कितनी इसकी कलियाँ,

मुझाई कितनी बल्लरियाँ,

जो मुझाई फिर कहाँ खिली,
पर बोलो, सूखे फूलों पर,
कब मधुबन शोर मचाता है!"

अथवा

"मैं भी ब्राह्मण हूँ बाबा, बहुत भूखा हूँ, दो दिन से भूखा हूँ। बीमार हूँ। कुछ नहीं मिलेगा तो मर जाऊँगा। कुछ दया करो।"

3. 'जागरण' कविता में कवि ने नवनिर्माण के पावन युग का उद्घोष किया है।

स्पष्ट कीजिए।

10

अथवा

'यह दीप अकेला' कविता का आशय स्पष्ट कीजिए।

4. 'त्रिबेनी' कहानी में भारतीय नारी की मनोदशा को चित्रित किया गया है। स्पष्ट

कीजिए।

10

अथवा

‘लड़की की शादी’ कहानी की मूल संवेदना को स्पष्ट कीजिए।

5. टिप्पणी लिखिए :

5

‘नये जमाने की मुकरी का आशय।

अथवा

‘नशा’ कहानी का ‘मैं’।

This question paper contains 7 printed pages]

G—53—2015

FACULTY OF SCIENCE

B.Sc. (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2015

ZOOLOGY

Paper II

(Cell Biology)

(MCQs and Theory)

(Tuesday, 21-4-2015) Time : 10.00 a.m. to 12.30 p.m.

Time—2½ Hours

Maximum Marks—40

N.B. :- (i) Attempt All questions.

(ii) Use separate (OMR) answer-sheet for MCQ questions No. 1.

*(iii) **One** mark to each correct answer of an MCQ.*

(iv) Negative marking system is applicable.

*(v) Use black ball-point pen to darken the circle of *correct* choice in OMR answer-sheet.*

*(vi) Draw well labelled diagrams wherever necessary for question nos. **2, 3** and **4**.*

P.T.O.

(MCQ)

1. Choose the *correct* answer :

(i) Who invented Compound Microscope in 1665 ?

- (a) Robert Brown
- (b) Robert Hooke
- (c) Robert de Souza

(d) Robertson

(ii)model of plasma membrane was proposed by Singer and Nicolson in 1972.

- (a) Sandwich
- (b) Unit membrane
- (c) Fluid mosaic
- (d) Lattice

(iii) Smooth endoplasmic reticulum is concerned with.....

(a) Wall synthesis

(b) Protein synthesis

(c) Detoxification

(d) All of the above

(iv) Which of the following is known as 'Power House of Cell' ?

(a) Golgi complex

(b) Ribosome

(c) Lysosomes

(d) Mitochondria

(v)type of ribosomes are found in prokaryotic cells.

(a) 60 S

(b) 70 S

(c) 80 S

(d) 90 S

(vi) Controlling center of the cell is.....

(a) Ribosome

(b) Nucleus

(c) Nucleolus

(d) Mitochondria

(vii) Centromere is a part of.....

(a) Ribosomes

(b) Mitochondria

(c) Chromosome

(d) Endoplasmic reticulum

- (viii) The longest phase of mitosis is.....
- (a) Telophase
 - (b) Anaphase
 - (c) Metaphase
 - (d) Prophase
- (ix) The uncontrolled growth of cell is the characteristic of.....
- (a) Somatic cell
 - (b) Liver cell
 - (c) Cancer cell
 - (d) Germ cell
- (x) Which is the principal function of Lysosomes ?
- (a) Excretion
 - (b) Protein synthesis
 - (c) Respiration
 - (d) Digestion

2. Define cell and explain in detail composition and functions of plasma membrane. 10

Or

Write notes on :

- (a) Structure of Eukaryotic cell
- (b) Causes of cancer.
3. Describe in detail the structure and functions of mitochondria. 10

Or

Write notes on :

- (a) Functions of ribosomes
- (b) Metaphase and Anaphase of mitosis.

4. Write in detail the structure, type and functions of chromosomes. 10

Or

Write notes on :

(a) Functions of Lysosomes

(b) Malignant Cancer.

This question paper contains 7 printed pages]

G—46—2015

FACULTY OF SCIENCE

B.Sc. (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2015

PHYSICS

Paper I (Phy-111)

(Mechanics and Properties of Matter)

(MCQ + Theory)

(Monday, 20-4-2015)

Time : 10.00 a.m. to 12.30 p.m.

Time—2½ Hours

Maximum Marks—10+30=40

N.B. :- (i) Attempt All questions.

(ii) Q. No. 1 is MCQ type. Answer MCQ questions on OMR sheet only.

(iii) Q. No. 2, Q. No. 3 and Q. No. 4 are descriptive type.

(iv) Use OMR sheet for MCQ type questions and separate answer-sheet for descriptive type questions.

(v) Time allotted for MCQ questions is 30 minutes and descriptive questions is 2 Hrs. only.

(vi) Negative marking system is applicable to MCQ questions.

P.T.O.

(MCQ)

1. Attempt all Multiple Choice Questions :

10

(i) According to Kepler's Second law, the aerial velocity of the planet :

- (a) changes as per time
- (b) is directly proportional to velocity

(c) is double of aerial velocity

(d) remains constant

(ii) Gravitational potential at a point inside the solid sphere is given by :

(a) $-GM \left[\frac{3a^2 - R^2}{2a^3} \right]$

(b) $GM \left[\frac{3a^2 - R^2}{2a^3} \right]$

(c) $-GM \left[\frac{3a^2 + R^2}{2a^3} \right]$

(d) $-GM \left[\frac{4a^2 - R^2}{3a^2} \right]$

(iii) The excess pressure inside a liquid drop is :

(a) $\frac{4T}{r}$

(b) $\frac{2T}{r}$

(c) $\frac{T}{2r}$

(d) $\frac{T}{r}$

(iv) The unit of surface tension in M.K.S. system is :

(a) N/m^2

(b) N/m

(c) N/m-s

(d) Nm/s

(v) The critical velocity of a liquid is :

(a) $\frac{k\eta}{\rho r}$

(b) $\frac{k\rho}{\eta r}$

(c) $\frac{kr}{\rho\eta}$

(d) $\frac{k\rho\eta}{r}$

(vi) The C.G.S. unit of viscosity is :

- (a) dyne
- (b) erg
- (c) poise
- (d) none of the above

(vii) As temperature of the liquid increases its viscosity :

- (a) Increases
- (b) Decreases
- (c) Remains constant
- (d) None of the above

(viii) Twisting couple per unit twist of the wire is called as :

- (a) Young's Modulus
- (b) Bulk Modulus
- (c) Stress
- (d) Torsional rigidity

(ix) In Maxwell's needle experiment, the oscillations are given :

- (a) Horizontal
- (b) Vertical
- (c) Torsional
- (d) None of the above

(x) The equation of bending moment is :

✓ (a) $\frac{YI_g}{R^2}$

(b) $\frac{YI_g^2}{R^2}$

(c) $\frac{Y^2I_g}{R}$

(d) $\frac{Y \cdot I_g}{R}$

(Theory)

2. Attempt any *five* questions from the following : 10

- (i) Define and explain Gravitational field.
- (ii) Distinguish between Adhesive force and Cohesive force.

(iii) Explain the terms :

✓(a) Viscosity

✓(b) Coefficient of Viscosity.

(iv) Define the terms : Surface tension and Surface energy.

(v) Define Young's Modulus and obtain its units and dimensions.

(vi) Explain the terms :

(a) Velocity gradient

(b) Critical velocity.

(vii) Define elasticity. State *three* types of strain.

3. Attempt any *two* questions from the following : 10

(i) Define and explain gravitational potential and potential energy of gravitational field.

(ii) Explain with necessary diagrams the pressure difference across a curved surface.

(iii) State and explain Bernoulli's theorem.

- (iv) Describe an experiment for the determination of Young's modulus of a beam supported at both the ends and loaded at the centre.

4. Attempt any *one* of the following : 10

- (a) Describe static torsion experiment to determine modulus of rigidity of the rod and deduce the necessary formula.
- (b) Describe the Fergusson's method for determining the value of surface tension of a liquid.

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G—34—2015

FACULTY OF SCIENCE

B.Sc. (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2015

BOTANY

Paper I

(Diversity of Microbes)

(MCQ + Theory)

(Saturday, 11-4-2015)

Time : 10.00 a.m. to 12.30 p.m.

Time—2½ Hours

Maximum Marks—10+30=40

N.B. :— (i) Attempt All questions.

(ii) All questions carry equal marks.

(iii) Use separate answer sheet for MCQ (OMR sheet) and descriptive questions.

(iv) Time allotted to MCQ is 30 minutes and to descriptive questions 2.00 hours.

(v) Draw a well labelled diagram wherever necessary.

P.T.O.

(MCQ)

1. Choose the *correct* answer of the following questions. 10

(i) The symptom produced by virus is

(a) Rust

(b) Cankers

(c) Mosaic

(d) Mildews

(ii) The viruses are also called as

(a) Crystal particles

(b) Protein particles

(c) Mysterious particles

(d) Dust particles

(iii) Chlorosis of veins is caused by

(a) Mycoplasma

(b) Virus

(c) Bacteria

(d) Fungi

- (iv) Bacteria increase
- (a) Fertility of soil
 - (b) pH of soil
 - (c) Temperature of soil
 - (d) Waterholding capacity of soil
- (v) Bacteria are
- (a) Multicellular
 - (b) Unicellular
 - (c) Bi-cellular
 - (d) Acellular
- (vi) Bacteria are primitive organisms.
- (a) Prokaryotic
 - (b) Eukaryotic
 - (c) Monokaryotic
 - (d) Dikaryotic

(vii) is a group of prokaryotic fungi.

- (a) Mastigomycota
- (b) Deuteromycota
- (c) Gymnomycota
- (d) Amastigomycota

(viii) Ascospores are produced in

- (a) Trichogyne
- (b) Ascus
- (c) Basidium
- (d) Ascogonium

(ix) Uredial stage is found in the life cycle of

- (a) Alternaria
- (b) Eurotium
- (c) Puccinia
- (d) Lichen

(x) The study of lichen is called as

- (a) Phycology
- (b) Mycology
- (c) Lichenology
- (d) Pathology

(Theory)

2. Describe the structure of mycelium and sexual reproduction in *Albugo*. 10

Or

Describe in brief :

- (a) General characters and classification of viruses.
- (b) Yellow vein mosaic of Bendi.

3. Describe the ultrastructure of bacterial cell and add a note on its asexual reproduction. 10

P.T.O.

Or

Write in brief :

(a) Mode of nutrition in bacteria;

(b) *Nostoc*.

4. Give an account on life-cycle of 'Alternaria'.

10

Or

Describe in short :

(a) Role of fungi in medicine and food.

(b) General characters and classification of Lichen.

This question paper contains 4+2 printed pages]

AD—337—2014

FACULTY OF COMPUTER STUDIES

B.Sc. (First Year) (First Semester) EXAMINATION

NOVEMBER/DECEMBER, 2014

COMPUTER SCIENCE

Paper I

(Fundamentals of Computer Organization)

(MCQ + Theory)

(Monday, 15-12-2014) Time : 10.00 a.m. to 12.30 p.m.

Time—2.30 Hour

Maximum Marks—40

N.B. :— (i) All questions are compulsory.

(ii) Draw neat and labelled diagrams wherever necessary.

(iii) Assume suitable data wherever necessary.

MCQ

1. Solve *all* MCQs given below : 10

(i) The person who handle the computer is called as

(a) User

(b) File

(c) Server

(d) Client

P.T.O.

WT

(2)

AD-337-2014

(ii) CU stand for

(a) Control unity

(b) Control unit

(c) Control union

(d) Contact unit

(iii) KB = 1 MB.

(a) 1204

(b) 1402

(c) 1024

(d) 2014

(iv) Base of octal number system is

(a) 14

(b) 12

(c) 10

(d) 8

(v) Floppy disk is a disk.

- (a) Plastic
- (b) Gold
- (c) Silver
- (d) Platinum

(vi) Mini floppy having the capacity of MB.

- (a) 2.44
- (b) 1.44
- (c) 3.44
- (d) 4.44

(vii) Mouse is a device.

- (a) Output
- (b) Soft
- (c) Pointing
- (d) Hard

(viii) Dot matrix printer uses the

- (a) Ink
- (b) Light ink
- (c) Colour
- (d) Ribbon

(ix) The wild character is used to represent all characters.

- (a) *
- (b) ?
- (c) ? :
- (d) ^^

(x) Warm boot does not check memory.

- (a) PROM
- (b) RAM
- (c) EPROM
- (d) All of the above

(Theory)

2. (a) Explain the block diagram of computer. 10

Or

(b) Explain ROM in detail. 5

(c) Explain file and directory. 5

3. (a) Convert the following : 10

(i) $(2345)_{10} = (?)_2$

(ii) $(BBA)_{16} = (?)_8$

(iii) $(1011101)_2 = (?)_{10}$

(iv) $(7572)_8 = (?)_{16}$

(v) $(7545)_{10} = (?)_8$

Or

(b) Explain Hard disk in detail. 5

(c) Explain Inkjet and Laser printer. 5

4. (a) Explain the following DOS commands with syntax and example : 10

(i) Deltree

(ii) Attribe

(iii) Path

(iv) REN

(v) CD.

Or

(b) Explain multitasking and multi-user. 5

(c) Explain Architecture of Windows operating system. 5

This question paper contains 4+2 printed pages]

G—47—2015

FACULTY OF SCIENCE

B.Sc. (First Semester) EXAMINATION

MARCH/APRIL, 2015

ZOOLOGY

Paper I

[Life and Diversity of Animals—I (Non-Chordata)]

(MCQ + Theory)

(Monday, 20-4-2015)

Time : 10.00 a.m. to 12.30 p.m.

Time—2½ Hours

Maximum Marks—40

N.B. :— (i) Use separate answer-sheet (OMR) for Question No. 1.

(ii) One mark to each correctly answered MCQ.

(iii) Negative marking system is applicable.

(iv) Use black ball pen to darken the circle of correct choice in OMR answer-sheet.

(v) Darken only one circle for the answer of an MCQ.

(vi) Draw a well labelled diagram, whenever necessary.

P.T.O.

(MCQ)

1. Choose the correct answer :

(i) Life cycle of *Plasmodium vivax* is

- (a) Monogenic
- (b) Digenic
- (c) Trigenic
- (d) All of the above

(ii) In sponges, food is ingested by

- (a) Phagocytes
- (b) Trophocytes
- (c) Choanocytes
- (d) Archeocytes

(iii) Corals are formed by

- (a) Protozoa
- (b) Porifera
- (c) Coelenterata
- (d) Platyhelminthes

- (iv) Sucker is absent in
- (a) Turbellaria
 - (b) Trematoda
 - (c) Cestoda
 - (d) All of the above
- (v) In *Ascaris*, last moulting of larva takes place in
- (a) Liver of man
 - (b) Lung of man
 - (c) Heart of man
 - (d) Intestine of man
- (vi) are the excretory organs in Annelids.
- (a) Flame cells
 - (b) Nephridia
 - (c) Malpighian tubules
 - (d) Gland cells

(vii) Body cavity of Arthropods is

(a) Haemocoel

(b) Pseudocoel

(c) Celenteron

(d) Coelom

(viii) The locomotion mode of cockroach is

(a) Cursorial

(b) Flight

(c) Both (a) and (b)

(d) None of the above

(ix) Mode of respiration in Mollusca is

(a) Gills

(b) Ctenidia

(c) Lungs

(d) All of the above

(x) Tube feet and pedicellariae are found in

(a) Jelly fish

(b) Silver fish

(c) Cuttle fish

(d) Star fish

(Theory)

2. Describe general characters of Porifera and add its economic importance. 10

Or

Write notes on :

- (a) Symptoms and control measures of Malaria.
(b) General characters of Hemichordata.

3. Explain polymorphism of coelenterata. 10

Or

Write notes on :

- (a) Cestoda
(b) Salient features of Mollusca.

4. Describe nervous system of Cockroach. 10

Or

Write notes on :

(a) Polychaeta

(b) Water vascular system of starfish.

This question paper contains 4+2 printed pages]

A—47—2015

FACULTIES OF ARTS/COMMERCE AND SCIENCE

B.A./B.Com./B.Sc. (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2015

ENGLISH

(Compulsory)

(MCQ and Theory)

(Friday, 10-4-2015)

Time : 10.00 a.m. to 12.30 p.m.

Time—2½ Hours

Maximum Marks—40

N.B. :— (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

MCQ

1. Give the synonym of 'Faint' :

10

- (a) fair
- (b) gentle
- (c) dark
- (d) dull

P.T.O.

2. The synonym ofis 'defend'.

(a) support

(b) exploit

(c) depart

(d) reply

3. Choose an antonym for 'Powerful' :

(a) Strong

(b) Polite

(c) Incapable

(d) Lavish

4. Give an antonym of 'Suffer' :

(a) relieve

(b) pain

(c) disgust

(d) remove

5. Why did Columbus.....to India, Sir ?
- (a) Not come
 - (b) Came
 - (c) Not came
 - (d) Has come
6. I think you.....taking this too seriously.
- (a) Must be
 - (b) Should
 - (c) Are
 - (d) Were
7. The author was particularly impressed by a civil and kind of act of this person.....
- (a) Captain Anthony
 - (b) The Page-boy
 - (c) Lift-man
 - (d) Bus Conductor

8. Who was the girl that the narrator met at Deoli Station ?
- (a) His cousin
 - (b) A basket seller
 - (c) A visitor to his grandfather's house
 - (d) The owner of a tea-stall
9. What does the author equate the scientific point of view with ?
- (a) No judgements
 - (b) God's eye-view
 - (c) Bird's eye-view
 - (d) Objectivity
10. 'Father's Help' has been taken from the anthology :
- (a) An Astrologer's Day
 - (b) Swami and Friends and other stories
 - (c) The English Teacher
 - (d) The Man-Eater of Malgudi

(Theory)

1. Explain with reference to the context any *one* of the following : 4

(i) The pain of a kick on the shin soon passes away but the pain of a wound to our self-respect or our vanity may poison a whole day.

(ii) Of course, the phrase 'Live according to nature' is quite meaningless.

2. What values did Subroto Bagchi learn from his family ? 8

Or

Sketch the character of Swami in your own words.

3. Write short answers of the following questions (any *two*) : 8

(i) What does A.G. Gardiner say about the value of good manners ?

(ii) What message does Haldane convey in his essay ?

(iii) Sketch the character of Sir Mohan Lal.

(iv) Write a note on the theme of 'If You Are Wrong, Admit It'.

P.T.O.

4. (A) Write a report on Blood donation camp organised by your college. 5

Or

Write an E-mail to your teacher for your inability to attend the seminar.

- (B) Write an application for the post of Receptionist to the Manager, Indian Chemical Industry, Mumbai. 5

Or

Write a letter to the Editor of the local newspaper regarding the problem of noise pollution during festivals.

This question paper contains 4+2 printed pages]

A—39—2015

FACULTY OF ARTS/COMMERCE/SCIENCE

B.A./B.Com./B.Sc. (First Semester) EXAMINATION

MARCH/APRIL, 2015

मराठी (S.L.)

(साहित्य गाथा, भाग-1)

(MCQ + Theory)

(Thursday, 9-4-2015)

Time : 10.00 a.m. to 12.30 p.m.

Time—2½ Hours

Maximum Marks—40

N.B. :— (i) सर्व प्रश्न सोडविणे अनिवार्य आहे.

(ii) सर्व प्रश्नांना समान गुण आहेत.

(MCQ)

1. खालील वस्तुनिष्ठ प्रश्न सोडवा :

10

(1) "आरे सांडि : सांडी हे

हीरड्या फुटति : ना :"

(a) दूध

(b) बळहे

(c) रुंभणे

(d) हात

P.T.O.

- (2) महात्मा फुल्यांची काव्यरचना या नावाने ओळखली जाते.
- (a) भारुड
- (b) अखंड
- (c) ओवी
- (d) अभंग
- (3) 'आऊ' या लेखातून आऊच्या, नितळ मनाच्या स्वच्छ व्यक्तिमत्त्वाचे दर्शन घडते.
- (a) सुधारणावादी
- (b) प्रतिगामी
- (c) अंधश्रद्धाळू
- (d) कर्मकांडवादी
- (4) 'सर, देश म्हणजे काय हो ?' मधील दादा डायरेक्ट कोणाशी बोलतो ?
- (a) राज्यपाल
- (b) राष्ट्रपती
- (c) पंतप्रधान
- (d) मंत्री

(5) आपल्याला मोटेपणा मिळेल व आपली

वाढेल म्हणून मकाजी दहा हजाराची लॉटरी लागल्याची बतावणी

करतो.

(a) संपत्ती

(b) उंची

(c) पत

(d) ओळख

(6) 'कुत्रें' या रूपकात्मक भारुडातून आणि कुत्रा

यांचा संवाद आला आहे.

(a) ब्राह्मण

(b) क्षत्रिय

(c) वैश्य

(d) शूद्र

(7) महात्मा जोतिबा फुले यांचे कार्यकर्तृत्व आपल्या कवितेतून कोणी स्पष्ट केले आहे ?

- (a) बाबूराव बागूल
- (b) ग. ल. ठोकळ
- (c) फ. मु. शिंदे
- (d) विठ्ठल रामजी शिंदे

(8) 'लक्ष्मी' या कवितेतील नवविवाहितेला कवीने कशाचे प्रतीक मानले आहे ?

- (a) शिक्षण
- (b) समृद्धी
- (c) दारिद्र्य
- (d) वरील सर्व

(9) 'बातमी म्हणजे रोजचे गद्य होय' ही व्याख्या कोणाची ?

- (a) चार्ल्स ए डॅना
- (b) मॅन्सफिल्ड
- (c) रिचर्ड क्रिचफिल्ड
- (d) के. एम. श्रीवास्तव

4. खालीलपैकी कोणताही एक प्रश्न सोडवा :

10

- (i) व्यक्तिमत्त्व विकासासाठी आवश्यक असलेल्या श्रवण आणि वाचन कौशल्याचे स्वरूप स्पष्ट करा.
- (ii) न्यायक्षेत्र आणि कार्यालयीन क्षेत्रातील प्रत्येकी पाच पारिभाषिक संज्ञा लिहा.

This question paper contains 3 printed pages]

M—48—2015

FACULTY OF COMPUTER STUDIES

B.Sc. (CS) (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2015

(Revised Course)

COMPUTER SCIENCE

(Web Page Designing)

(Monday, 20-4-2015)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :— (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

(iii) Assume data, if required.

1. Attempt the following : 20
- (a) Explain web browser.
 - (b) Explain row span.
 - (c) Explain global variable.
 - (d) Explain colspan.

P.T.O.

2. (a) Explain web design process in detail. 8

(b) Explain functions in VB script. 7

Or

(a) Explain the structure of HTML. 8

(b) Explain HR tag with example. 7

3. (a) Explain DOM in detail. 8

(b) Explain FONT tag with example. 7

Or

(a) Explain ramification of DHTML. 8

(b) Explain Animation in detail. 7

4. (a) Explain Roll over button in DHTML. 8

(b) Explain paragraph tag with their attribute. 7

Or

(a) Explain operator in JavaScript. 8

(b) Explain frameset tag. 7

5. Write short notes on (any *three*) :

15

(a) Date and time operator;

(b) URL;

(c) Anchor tag;

(d) Select-case;

(e) www.

This question paper contains 3 printed pages]

M—5—2015

FACULTY OF SCIENCE

B.Sc. (CS) (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2015

(Revised Course)

COMMUNICATION SKILLS-I

(Thursday, 9-4-2015)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :— (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

1. Write short notes on the following : 20

(a) Verbal communication;

(b) Importance of communication;

(c) English for specific;

(d) Non-verbal communication.

P.T.O.

2. Differentiate between seminar and conference. 15

Or

Differentiate between Indian English and British English.

3. Explain the concept of D.P.I. in detail. 15

Or

Define language and explain the features of language in detail.

4. Explain the barriers of communication in detail. 15

Or

Write a note on presentation skills.

5. (A) Transcribe any *ten* of the following words phonemically : 10

(i) Want;

(ii) With;

(iii) Accept;

(iv) Get;

(v) But;

(vi) Manage;

(vii) Good;

(viii) Advise;

(ix) Write;

(x) Give;

(xi) Teacher;

(xii) Mother.

(B) Transcribe any *two* of the following sentences using stress and intonation : 5

(i) I play chess;

(ii) She studies grammar;

(iii) When are they coming ?

This question paper contains 3 printed pages]

M—15—2015

FACULTY OF COMPUTER STUDIES

B.Sc. (CS) (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2015

(Revised Course)

COMPUTER SCIENCE

(Fundamental of I.T.)

(Saturday, 11-4-2015)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :— (i) All questions are compulsory.

(ii) Negative mark system is not applicable.

(iii) Draw a well labelled diagram if necessary.

1. Attempt the following : 20

Explain :

(i) Basic structure of computer.

(ii) Basic gates.

(iii) Principle of flow charting.

(iv) External commands of DOS.

P.T.O.

2. (a) Explain classification of computer. 8

(b) Explain low and high level languages. 7

Or

(c) Solve the following : 15

(i) $(111011)_2 = (?)_{10}$

(ii) $(154)_8 = (?)_{10}$

3. (a) What is physical communication ? Explain types of communication. 8

(b) What is microprocessor ? Explain family of M.P. 7

Or

(c) Explain CRT and LCD in detail. 8

(d) Explain scanning devices BAR CODE, OMR and MICR. 7

4. (a) Explain an actual microcomputer and minimum micro-computer configuration. 8

(b) What is Windows O.S. ? Explain files and folders.. 7

Or

- (c) Explain Booting procedure of DOS. 8
- (d) What are files and directory ? Explain types of files. 7
5. Attempt the following (any *three*) : 15
- (a) ZIP Drive
- (b) Hexadecimal No. System
- (c) Interpreter
- (d) Base memory
- (e) Modem.

This question paper contains 3 printed pages]

M—26—2015

FACULTY OF COMPUTER STUDIES

B.Sc. (CS) (First Year) (First Semester) EXAMINATION

MARCH/APRIL, 2015

(Revised Course)

COMPUTER SCIENCE

(Introduction to Programming in 'C')

(Wednesday, 15-4-2015) Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :— (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

(iii) Assume suitable data if necessary.

1. Write short notes on the following : 20

(i) For-loop

(ii) History of 'C'

(iii) Break and continue statement

(iv) Recursion.

P.T.O.

2. (a) Explain the advantages and disadvantages of machine languages. 8

(b) Define algorithm. Write an algorithm to perform addition of two numbers. 7

Or

(c) Explain various tokens in 'C'. 8

(d) Explain structure of 'C' program. 7

3. (a) Explain different data types in 'C'. 8

(b) Explain with suitable example 'printf() scanf()'. 7

Or

(c) What is decision making ? Explain 'if else' statement. 8

(d) What is operator ? Explain different relational operators. 7

4. (a) What is function ? What are advantages of user define function ? 8

(b) Explain the use of while statement with suitable example. 7

Or

- (c) Write a program to find largest element from the array. 8
- (d) What is pointer ? Explain about pointer arithmetic. 7
5. Write notes on (any three) : 15
- (i) Dynamic memory allocation
 - (ii) Random Access Files
 - (iii) Union
 - (iv) strlen() and strcat().

2. (a) Differentiate between physical and logical files. 8

(b) Explain overview of indexers. 7

Or

(a) Explain data dependencies in DBMS. 8

(b) Explain ER models in detail. 7

3. (a) Explain entities Vs. attributes in detail. 8

(b) Explain integrity constraint in detail. 7

Or

(a) Explain joins in DBMS. 8

(b) Explain how to create, drop and alter in DBMS. 7

4. (a) Explain different aggregate function in DBMS. 8

(b) Explain nested query in DBMS. 7

Or

(a) Explain types of indexers in DBMS. 8

(b) Explain advantages of DBMS. 7

5. Write notes on (any *three*) :

15

(a) Heap

(b) B⁺ tree

(c) DML

(d) Binary Vs. Ternary

(e) Division.