D 53480 (Pages : 4) Name.................................

Reg. No.............................

FIRST SEMESTER U.G. DEGREE EXAMINATION, JANUARY 2014

Common Course—Sanskrit

B.Sc. Alternate Pattern

SK IA 07 (03)—ANCIENT SCIENCE : SUBHASHITAS AND GRAMMAR

(2013 Admission onwards)

Time : Three Hours   Maximum : 30 Weightage

Instructions : *Answers may be written* **either** *in Sanskrit* **or** *in Malayalam. In writing Sanskrit, Devanagari script should used. Questions are divided into Part A and Part B. Part A is general for all students and Part B which is again divided into four specific groups of Chemistry, Physics, Biology and Mathematics of same question numbers is elective.*

I. Answer *all* questions choosing correct answer from the bracket :

Part A (Common)

1 विवेकभ्रष्टानां शतमुखः   ....।   (विनिपातः, अभ्युन्नतिः, श्रेयः)

2 नन्दोदवर, किं अस्माकं .... प्रतीक्षसे ?   (स्तुतिम, कार्पण्योक्तिम्, निन्दाम्)

3 रससिद्धाः   ....ः या ˉ ।   (मुनीश्वराः, सुकृतिनः, राजानः)

4 सम्पत्सु महतां Rti_____ं   ?   (शिलाकठिनम्, रूक्षम्, उत्पलकोमलम्)

5 भूधातोः M.f_ प्रथमपुरुषॱ   नं ॱ्॰म्   (भवाम, भवन्ति, भवन्तु)

6 वृक्षश   ससमीविभक्त्तौ   रूपम् ।   (वृक्षाय, वृक्षे, वृक्षस्य)

7 लताशब्दस्य   कवचन   (लतया, लतायाम्, लतायाः)

8 _____ लकारे प्रथमपुॱ   (वन्दते, अवन्दत, ववन्दे)

Part B (Special)

Chemistry

9 What is the basis of chemical science.   (Fire, Air, Earth)

10 Science in History is written by whom ?   (Ganesa, Umasvati, J.D. Bernal)

11 Kautilya is the author of _____   (Vyakarana, Kaumudi, Arthasastra)

12 Brhatsamhita is written by _____   (Varahamihira, Brahmagupta, Yaska)

Turn over

Physics

9 The concept of parinama was formulated by ———— ?   (Samkhya, Nyaya, Advaita)

10 ———— relation is one of the major tools for scientific investigation.

(Cause and effect, Advaitavada, concept of god)

11 Theory of new creation is formulated by the ———— (Vaisesikas, Samkhyas, Yogins).

12 ———— and matter are the basic concepts of science.   (Energy, height, weight)

Biology

9 The author of ———— is Nilakantha.   (Gajasiksa, Matangalila, Palakapyam)

10 Gajasiksa is attributed to   (Gautama, Narada, Jaimini).

11 ———— deals with elephantology.   (Matangalila, Silparatna, Mimamsa)

12 ———— is the author of Abhilasitarthacintamani.   (Vararuci, Somesvara, Yaska)

Mathematics

9 Aryabhatiya is a text on Mathematics by ———— (Aryabahata, Ganesa, Bhaskara II)

10 ———— is the author of Vedandajyotisa.   (Ganesa, Venkitesa, Lagadha).

11 Nilakanthasomayaji is the author of ———— (Karanapaddhati, Nirukta, Cchandas)

12 Drksiddha is introduced by ———— (Paramesvara, Panini, Govinda).

(12 x ¼ = 3 weightage)

II. Answer the following in one *or* two sentences each :

Part A (Common)

13 पूरयत-वने रणे ———— ? Complete the verse 'Vane rane ————

14 मन ⌐ः वृत्तिद्वयं किम् ? What are the two ways of actions for manasvin?

15 पावकः कन् अपि दहति I Whom the fire burns ?

16 त्रीणि ———— निर्दिशत I Which are the three numbers in Sanskrit ?

17 संस्कृतव्याकरणे सप्त विभ ियः ? What are the seven cases in Sanskrit grammar ?

18 ् शब्दस्य तृतीयाविभक्त्तौ पाणि लिखत I What are the three forms of 'pi& in instrumental case ?

Part B (Special)

Chemistry

19 Name any two works related to Chemistry from ancient India.

20 Name any *three* chemical processes in ancient India.

21 What was the term used to denote Chemistry in ancient India ?

Physics

19 What is the main source of energy according to the Rgveda ?

20 Who is referred as Jatavedas in Vedas ?

21 Name any *three* major sources of energy referred to in Vedic texts.

Biology

19 Who wrote Arthasastra ?

20 What is the topic dealt with in Elephantology ?

21 What are the five ways for catching elephants ?

Mathematics

19 Which is meant by Drgsiddha ?

20 Who is known as 'golavid' in Kerala Astronomy ?

21 What are the works of Vatasseri Paramesvara on Ganita ?

(9 x 1 = 9 weightage)

III. Answer *five* of the following in a paragraph each.

Part A (Common)

(a) Answer any *two* out of three :

22 Name the six gunas (qualities) of a ruler ?

23 By which the deer, fish and good natured man are satisfied ? Who are the natural enemies ?

24 Whom and when the good actions done in the past protect ?

(b) Answer any *two* out of three :

25   पाणि I Decline 'Vana'sabda.

26 भधातोः r   लकारे   I Congugate the root 'bhu' in lat lakara.

27 लताशब्द   पाणि I Decline 'Latha'sabda.

Part B (Special)

Chemistry

28 Major experiments of Chemistry in ancient India.

Physics

29 Theory of evolution as explained by Samkhya.

Biology

28 Brhatsamhita on Vrksayurveda.

Mathematics

28 Vatassery Paramesvaran Namputhiri *or* Katapayadi notation.

(5 x 2 = 10 weightage)

IV. Write essays on any *two* out of *three* :

Part B only (Special)

Chemistry

30 Chemical processes referred to in Arthasastra.

31 Chemistry in ancient India.

32 Evaluate the contribution of ancient India on Chemistry.

Physics

29 Discuss the theory of creation advocated by Vaisesikas.

30 Explain the various sources of energy referred to in Vedic texts.

31 The importance of Fire as the main source of energy.

Biology

29 Biodiversity in Brhatsamhita.

30 Animal husbandry in ancient India.

31 Methods of preservation of plants and seeds.

Mathematics

29 Discuss the characteristics of Kerala Astronomy.

30 Discuss the contribution of Kelalloor Somayaji in Astronomy.

31 Write a historical outline of the major writers on astronomy and mathematics front Kerala ?

(2 x 4 = 8 weightag